USDA United States Department of Agriculture

Natural Resources Conservation Service

Montana Water Supply Outlook Report June 1, 2003

Picture: Black Bear SNOTEL Site - Winter of 1997

Water Supply Outlook Report
and
Federal - State - Private
Cooperative Snow Surveys

For more water supply and resource management information, contact:
See Attached List

How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

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Water Supply Outlook Report
and
Federal - State - Private
Cooperative Snow Surveys

United States Department of Agriculture
Natural Resources Conservation Service
Bozeman, Montana

(406) 587-6811
10 E Babcock
Federal Bldg Room 443
Bozeman MT 59715

Where to Get More Information

This contact list provides you with the names and phone numbers of individuals who can provide more detailed snow survey information for each county.

Beaverhead County
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683-3800

Big Horn County
Evan Van Order
665-3442

Blaine County
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Broadwater County
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Fallon County
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Flathead County
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Gallatin County
Gordon Hill
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Garfield County
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Mark Johnson
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John Rouane Jr.
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Granite County
Annette Deyling
859-3291

Hill County
Deana Grabofsky
265-6792

Jefferson County
Julie Sacks
287-3215

Judith Basin County
Rick Caquelin
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Lake County
David Wolf
676-2841

Lewis and Clark County
Lex Riggle
449-5278

Liberty County
Dawn Wickum
759-5778

Lincoln County
Kirk Sullivan
296-2233

Madison County
Ole Berkram
842-5741

McCone County
Regan Fanning
485-2744

Meagher County
Tammy DeCock
547-3633

(over)

Mineral County
Mike Odegard
829-3395

Missoula County
Mike Odegard
829-3395

Musselshell County
John Rouane Jr.
323-2103

Park County
Ron Hoagland
222-2899

Petroleum County
Nikki Lott
429-6646

Phillips County
Lorna Philp
654-1334

Pondera County
Anthony Prince
278-3922

Powder River County
Carol Hilliard
436-2417

Powell County
Glen Green
846-1703

Prairie County
Bob Prongua
635-5381

Ravalli County
Lane Johnson
363-5010

Richland County
Jamie Selting
433-2103

Roosevelt County
Robert Bray
787-5232

Rosebud County
Rocky Schwagler
356-7333

Sanders County
Don Feist
826-3701

Sheridan County
Monica Friedrich
765-1801

Silver Bow County
Julie Sacks
287-3215

Stillwater County
Philip Sandoval
322-5359

Sweet Grass County
Chuck Roloff
932-5160

Teton County
Stacy Denny-Eneboe
466-5722

Toole County
Misty Vermulm
434-5234

Treasure County
Stewart Greer
342-5510

Valley County
Denise Wiedenheft
228-4321

Wheatland County
John Oiestad
632-5534

Wibaux County
Katrina Johnson
796-2211

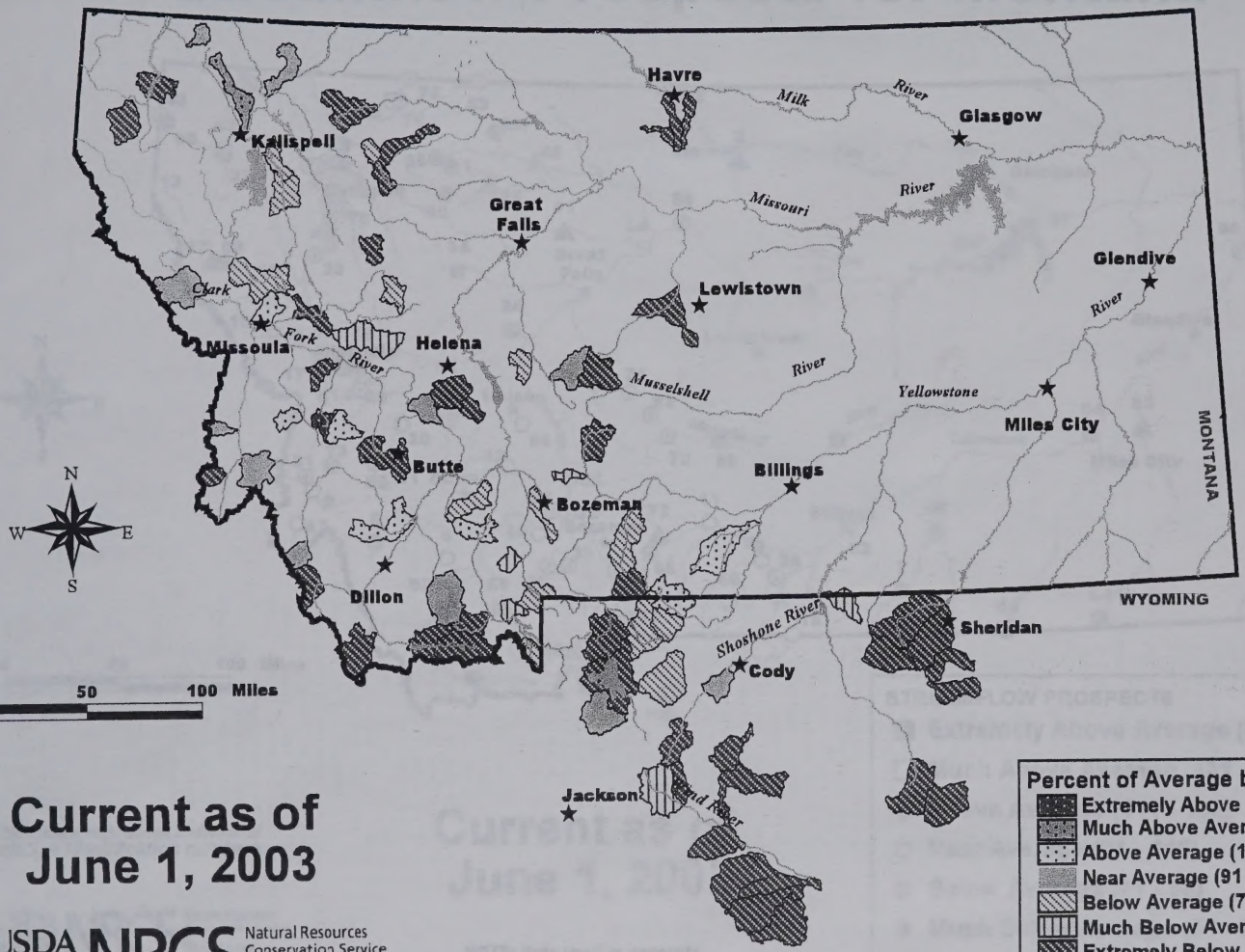
Yellowstone County
Shad Weber
657-6135

12/19/02

UNITED STATES DEPARTMENT OF AGRICULTURE

NATURAL RESOURCES CONSERVATION SERVICE

Mountain Snow Water Equivalent



Current as of June 1, 2003

USDA NRCS Natural Resources Conservation Service Montana

http://www.mt.nrcs.usda.gov

NOTE: Data used to generate this map are PROVISIONAL and SUBJECT TO CHANGE.

Mountain Snow Water Equivalent

Streamflow Prospects for Montana

Numbers represent individual station identification numbers.

Current as of June 1, 2003

NOTE: Data used to generate this map are PROVISIONAL and SUBJECT TO CHANGE.

STREAMFLOW PROSPECTS

- Extremely Above Average (Over150)
- Much Above Average (131 - 150)
- Above Average (111 - 130)
- Near Average (91 - 110)
- Below Average (71 - 90)
- Much Below Average (51 - 70)
- Extremely Below Average (Below 51)

USDA NRCS Natural Resources Conservation Service Montana

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Map #	Forecast Point
1	BADGER CREEK near Browning
2	BEAVER CREEK near Havre
3	BEAVERHEAD RIVER at Barretts
4	CLARK CANYON RES Inflow
5	BIG HOLE RIVER at Wisdom
6	BIG HOLE RIVER near Melrose
7	BIGHORN RIVER near St. Xavier
8	BITTERROOT at Missoula
9	BITTERROOT near Darby
10	BLACKFOOT RIVER near Bonner
11	BOULDER RIVER at Big Timber
12	BOULDER RIVER near Boulder
13	CLARK FK at Whitehorse Rpds
14	CLARK FORK above Milltown
15	CLARK FORK above Missoula
16	CLARK FORK at St. Regis
17	CLARK FORK below Missoula
18	CLARK FORK near Plains
19	CLARKS FORK RIVER near Belfry
21	COMO RESERVOIR Inflow
22	COONEY RESERVOIR Inflow
23	CUT BANK CREEK at Cut Bank
24	DEARBORN near Craig
25	DUPUYER CREEK near Valier
26	ENNIS Reservoir Inflow
27	FISHER RIVER near Libby
28	FLATHEAD at Columbia Falls
29	FLATHEAD Lake Inflow
30	FLINT CREEK below Boulder Ck
31	FLINT CREEK near Southern Cross
32	GALLATIN RIVER at Logan
33	GALLATIN RIVER near Gateway
34	GIBSON Reservoir Inflow
35	HEBGEN Reservoir Inflow
36	HUNGRY HORSE Reservoir Inflow
38	HYALITE RESERVOIR Inflow
39	JEFFERSON RIVER near Three Forks
40	KOOTENAI at Leonia
42	LAKE SHERBURNE Inflow
43	LIBBY RES Inflow
44	LIMA RESERVOIR Inflow
45	LITTLE BIGHORN RIVER near Hardin
46	LITTLE BLACKFOOT near Garrison
47	LOWER WILLOW CK RES Inflow
48	MARIAS RIVER near Shelby
49	MF FLATHEAD near West Glacier
50	MF ROCK CREEK near Philipsburg
52	MILK RIVER at East Cross.
53	MILK RIVER at Western Crossing
54	MISSOURI RIVER at Fort Benton
55	MISSOURI RIVER at Toston
56	MISSOURI RIVER at Virgelle
57	MISSOURI RIVER below Fort Peck
58	MISSOURI RIVER near Landusky
59	MUSSELSHELL at Harlowton
60	MYSTIC LAKE Reservoir Inflow
61	NEVADA CREEK near Finn
62	NF FLATHEAD near Columbia Falls
63	NF MUSSELSHELL near Delpine
64	POWDER RIVER at Moorehead
65	POWDER RIVER near Locate
66	PRICKLY PEAR CREEK near Clancy
67	PROSPECT CREEK at Thompson Falls
68	ROCK CREEK near Clinton
69	RUBY RIVER Reservoir Inflow
70	SF MUSSELSHELL above Martinsdale
71	SHEEP CREEK near White Sulphur Spgs.
72	SHIELDS RIVER near Livingston
73	SKALKAHO CK near Hamilton
74	SMITH RIVER above Eagle Creek
75	ST. MARY RIVER at US/CAN Border
76	ST. MARY RIVER near Babb
77	STILLWATER near Whitefish
78	STILLWATER RIVER near Absarokee
79	SWAN RIVER near Bigfork
80	SWIFT RESERVOIR Inflow
81	TETON near Dutton
82	THOMPSON near Thompson Falls
83	TOBACCO RIVER near Eureka
84	TONGUE RIVER RESERVOIR Inflow
85	TWO MEDICINE RIVER near Browning
87	WF BITTERROOT near Conner
88	WHITEFISH near Kalispell
89	WILLOW CREEK Reservoir Inflow
90	YAAK RIVER near Troy
91	YELLOWSTONE at Lake Outlet
92	YELLOWSTONE RIVER at Billings
93	YELLOWSTONE RIVER at Corwin Spgs
94	YELLOWSTONE RIVER at Miles City
95	YELLOWSTONE RIVER near Livingston
96	YELLOWSTONE RIVER near Sidney

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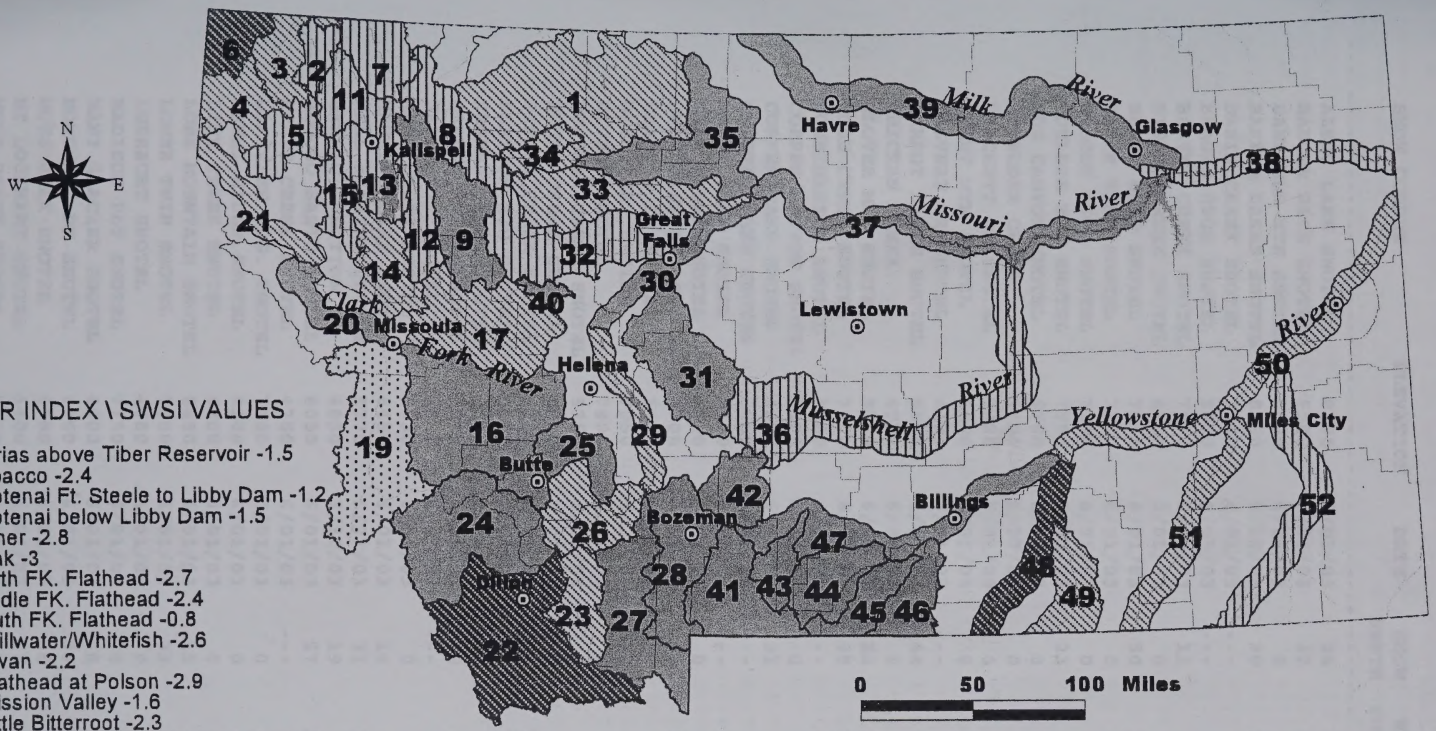

RIVER INDEX \ SWSI VALUES

1 Marias above Tiber Reservoir -1.5
2 Tobacco -2.4
3 Kootenai Ft. Steele to Libby Dam -1.2
4 Kootenai below Libby Dam -1.5
5 Fisher -2.8
6 Yaak -3
7 North FK. Flathead -2.7
8 Middle FK. Flathead -2.4
9 South FK. Flathead -0.8
11 Stillwater/Whitefish -2.6
12 Swan -2.2
13 Flathead at Polson -2.9
14 Mission Valley -1.6
15 Little Bitterroot -2.3
16 Clark Fork above Milltown 0.9
17 Blackfoot -1.2
19 Bitterroot 1.5
20 Clark Fork below Bitterroot 0.3
21 Clark Fork below Flathead -1.8
22 Beaverhead -3.7
23 Ruby -1.5
24 Big Hole -0.4
25 Boulder (Jefferson) 0.9
26 Jefferson -1
27 Madison 0.4
28 Gallatin 0.1
29 Missouri above Canyon Ferry -1.2
30 Missouri below Canyon Ferry -0.8
31 Smith -0.5
32 Sun -2.6
33 Teton -1.7
34 Birch/Dupuyer Creeks -1.5
35 Marias 0.4
36 Musselshell -2
37 Missouri above Fort Peck 0.4
38 Missouri below Fort Peck -2.5
39 Milk -0.8
40 Dearborn near Craig -0.8
41 Yellowstone above Livingston -0.8
42 Shields -0.8
43 Boulder (Yellowstone) -0.6
44 Stillwater 0.3
45 Rock/Red Lodge Creeks 0.9
46 Clarks Fork -0.3
47 Yellowstone above Bighorn -0.5
48 Bighorn below Bighorn Lake -3.7
49 Little Bighorn -1.1
50 Yellowstone below Bighorn -1.9
51 Tongue -1.6
52 Powder -2.7

Surface Water Supply Index (SWSI) Values

SWSI VALUES

- Extremely Dry -4.0 to -3.0
- Moderately Dry -2.9 to -2.0
- Slightly Dry -1.9 to -1.0
- Near Average -0.9 to 0.9
- Slightly Wet 1.0 to 1.9
- Moderately Wet 2.0 to 2.9
- Extremely Wet 3.0 to 4.0
- SWSI Not Applicable

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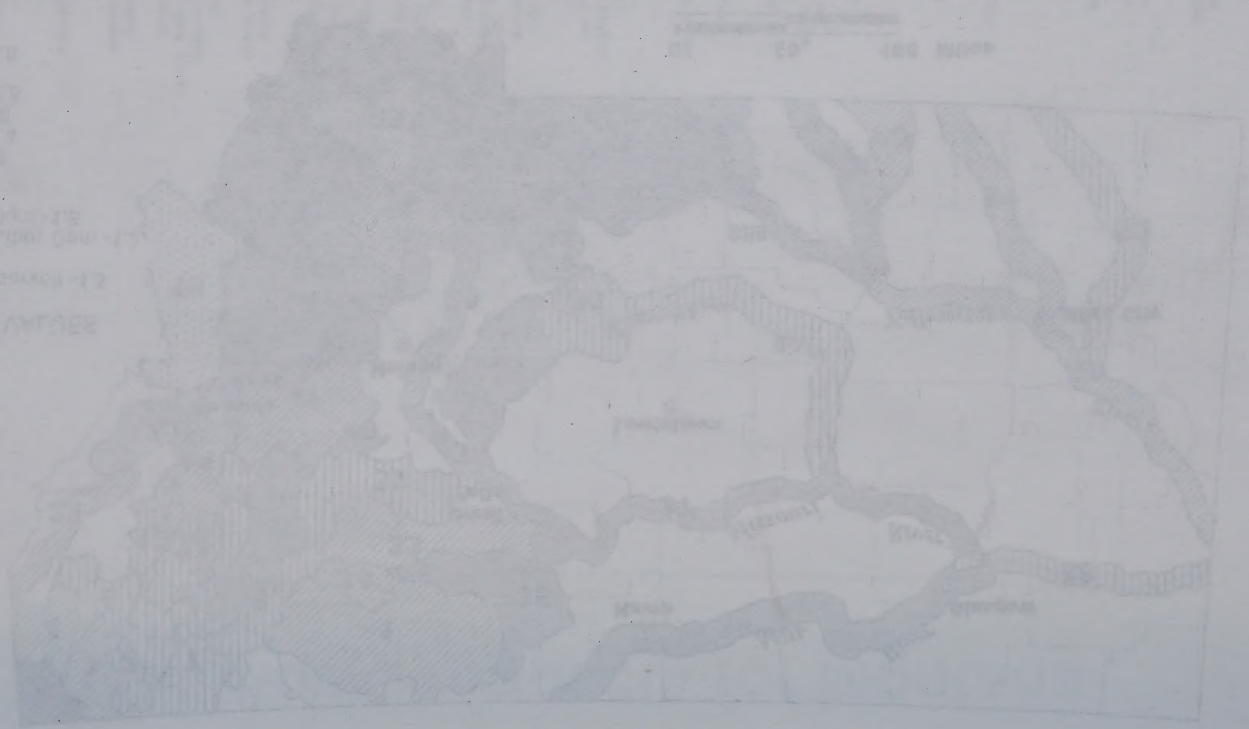


SNOTEL AND SNOW COURSE SUMMARY
JUNE 2003

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
ALBRO LAKE SNOTEL	8300	6/01/03	24	11.2	7.0	13.4
BADGER PASS SNOTEL	6900	6/01/03	32	16.6	37.8	22.9
BANFIELD MTN SNOTEL	5600	6/01/03	0	.0	4.9	2.9
BARKER LAKES SNOTEL	8250	6/01/03	30	11.5	7.2	9.5
BASIN CREEK SNOTEL	7180	6/01/03	---	.0	.0	4.1
BEAGLE SPGS SNOTEL	8850	6/01/03	---	.0	.0	1.4
BEAVER CREEK SNOTEL	7850	6/01/03	11	5.8	4.2	8.6
BISSON CREEK SNOTEL	4920	6/01/03	0	.0	.0	.0
BLACK BEAR SNOTEL	7950	6/01/03	50	25.0	23.5	26.1
BLACK PINE SNOTEL	7100	6/01/03	0	.0	.0	1.9
BLOODY DICK SNOTEL	7550	6/01/03	0	.0	.0	1.0
BOULDER MTN SNOTEL	7950	6/01/03	23	6.9	10.9	9.2
BOX CANYON SNOTEL	6700	6/01/03	0	.0	.0	.0
BOXELDER CREEK	5100	5/27/03	0	.0	.0	.2
BRACKETT CR SNOTEL	7320	6/01/03	6	2.7	10.8	5.1
BURNT MTN SNOTEL	5880	6/01/03	0	.0	.0	--
CALVERT CR SNOTEL	6430	6/01/03	---	.0	.0	.0
CARROT BASIN SNOTEL	9000	6/01/03	44	19.7	18.8	24.2
CHICKEN CREEK	4060	5/30/03	0	.0	.0	.0
CLOVER MDW SNOTEL	8800	6/01/03	23	11.0	10.4	11.3
COLE CREEK SNOTEL	7850	6/01/03	35	13.8	5.1	11.0
COMBINATION SNOTEL	5600	6/01/03	---	.0	.0	.0
COPPER BOTTOM SNOTEL	5200	6/01/03	0	.0	.0	.0
COPPER CAMP SNOTEL	6950	6/01/03	21	9.6	27.6	10.9
CRYSTAL LAKE SNOTEL	6050	6/01/03	---	.3	1.7	.7
DAISY PEAK SNOTEL	7600	6/01/03	---	.0	.0	3.4
DALY CREEK SNOTEL	5780	6/01/03	0	.0	.0	.0
DARKHORSE LK. SNOTEL	8700	6/01/03	60	28.8	24.4	26.3
DEADMAN CR SNOTEL	6450	6/01/03	---	.0	.0	.0
DISCOVERY BASIN	7050	5/28/03	18	8.2	1.0	2.4
DIVIDE SNOTEL	7800	6/01/03	0	.0	.0	2.7
DUPUYER CREEK SNOTEL	5750	6/01/03	0	.0	.0	.4
EMERY CREEK SNOTEL	4350	6/01/03	---	.0	.0	.0
FISHER CREEK SNOTEL	9100	6/01/03	69	35.5	31.7	30.1
FLATTOP MTN SNOTEL	6300	6/01/03	70	33.6	49.1	36.5
FROHNER MDWS SNOTEL	6480	6/01/03	0	.0	.0	.7
GARVER CREEK SNOTEL	4250	6/01/03	0	.0	.0	.0
GRAVE CRK SNOTEL	4300	6/01/03	---	.0	.0	.0
HAND CREEK SNOTEL	5030	6/01/03	0	.0	.0	.0
HAWKINS LAKE SNOTEL	6450	6/01/03	14	6.7	21.7	17.8
HELL ROARING DIVIDE	5770	5/27/03	31	14.1	18.9	10.8
HERRIG JUNCTION	4850	5/30/03	19	6.8	19.1	5.4
HOODOO BASIN SNOTEL	6050	6/01/03	57	28.0	51.2	28.4
KRAFT CREEK SNOTEL	4750	6/01/03	---	.0	.0	.0
LAKEVIEW RDG. SNOTEL	7400	6/01/03	0	.0	.0	.3
LEMHI RIDGE SNOTEL	8100	6/01/03	0	.0	.0	1.4
LICK CREEK SNOTEL	6860	6/01/03	0	.0	.0	.5
LONE MOUNTAIN SNOTEL	8880	6/01/03	15	8.3	11.1	11.8
LOWER TWIN SNOTEL	7900	6/01/03	33	14.5	7.7	13.0
LUBRECHT SNOTEL	4680	6/01/03	0	.0	.0	.0
MADISON PLT SNOTEL	7750	6/01/03	8	1.7	2.7	9.0
MANY GLACIER SNOTEL	4900	6/01/03	0	.0	.0	.0
MONUMENT PK SNOTEL	8850	6/01/03	36	15.8	16.4	15.9
MOSS PEAK SNOTEL	6780	6/01/03	56	28.0	35.4	31.0
MT LOCKHART SNOTEL	6400	6/01/03	7	2.7	19.4	9.6
MULE CREEK SNOTEL	8300	6/01/03	29	11.6	7.2	9.3
N.E. ENTRANCE SNOTEL	7350	6/01/03	---	.0	.0	.4
NEVADA RIDGE SNOTEL	7020	6/01/03	4	2.3	2.7	3.4

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
NEZ PERCE CMP SNOTEL	5650	6/01/03	---	.0	.0	.3
N.F. ELK CR SNOTEL	6250	6/01/03	0	.0	.0	.6
NF JOCKO SNOTEL	6330	6/01/03	45	23.7	39.3	26.4
NOISY BASIN SNOTEL	6040	6/01/03	46	22.9	33.6	30.1
OPHIR PARK	7150	5/26/03	19	8.4	.9	--
PETERSON MDW SNOTEL	7200	6/01/03	---	6.8	1.1	2.7
PICKFOOT CRK SNOTEL	6650	6/01/03	---	.0	.0	.0
PIKE CREEK SNOTEL	5930	6/01/03	0	.0	15.6	7.3
PLACER BASIN SNOTEL	8830	6/01/03	22	10.1	10.7	14.6
POORMAN CR SNOTEL	5100	6/01/03	12	4.3	30.1	11.1
PORCUPINE SNOTEL	6500	6/01/03	0	.0	.0	.0
RED MOUNTAIN	6000	5/29/03	4	1.4	11.3	4.1
REVAIS CREEK	4800	6/02/03	0	.0	.0	.0
ROCKER PEAK SNOTEL	8000	6/01/03	26	11.4	10.2	11.7
ROCKY BOY SNOTEL	4700	6/01/03	0	.0	.0	.2
SACAJAWEA SNOTEL	6550	6/01/03	0	.0	.0	.0
SADDLE MTN SNOTEL	7900	6/01/03	43	15.9	15.8	16.3
S.F. SHIELDS SNOTEL	8100	6/01/03	---	4.9	7.2	12.3
SHORT CREEK SNOTEL	7000	6/01/03	---	.0	.0	.0
SHOWER FALLS SNOTEL	8100	6/01/03	38	16.9	16.8	20.5
SKALKAHO SNOTEL	7260	6/01/03	38	17.9	13.8	14.6
SLEEPING WOMAN SNTL	6150	6/01/03	0	.0	6.2	1.2
SPUR PARK SNOTEL	8100	6/01/03	32	14.6	13.8	14.2
STAHL PEAK SNOTEL	6030	6/01/03	---	28.7	43.5	28.0
STRYKER BASIN	6180	5/30/03	45	21.8	33.8	19.4
STUART MOUNTAIN SNTL	7400	6/01/03	45	20.8	29.1	17.0
SUCKER CREEK	3960	5/27/03	0	.0	.0	.1
TAYLOR ROAD	4080	5/27/03	0	.0	.0	.2
TEPEE CREEK SNOTEL	8000	6/01/03	1	.8	1.0	5.2
TIZER BASIN SNOTEL	6840	6/01/03	0	.0	.0	.3
TV MOUNTAIN	6800	6/01/03	0	.0	8.2	--
TWELVEMILE SNOTEL	5600	6/01/03	0	.0	.0	.4
TWIN LAKES SNOTEL	6400	6/01/03	41	23.3	30.6	22.3
WALDRON SNOTEL	5600	6/01/03	0	.0	.0	.1
WARM SPRINGS SNOTEL	7800	6/01/03	---	22.5	16.9	17.0
WEST YELL'ST SNOTEL	6700	6/01/03	---	.0	.0	.0
WHISKEY CREEK SNOTEL	6800	6/01/03	0	.0	.0	1.2
WHITE MILL SNOTEL	8700	6/01/03	50	22.9	15.7	18.0
WOOD CREEK SNOTEL	5960	6/01/03	0	.0	.4	.5

Montana Water Supply Outlook Report as of June 1, 2003

May was a month of extremes. Early in the month snow was accumulating in the mountains and record low temperatures were seen in southwest Montana. By the end on the month, temperatures rebounded to record highs with snow melt well above average. The cold temperatures early in the month held on to snow that melted rapidly with the high temperatures later in the month. With above average temperatures there were several areas that had flooding. Flooding was generally minor and occurring mainly on farm land. With the rapid snow melt, most streams and rivers have reached their snow melt peaks for this year.

Snowpack

As of June 1, remaining mountain snow water contents were generally ranging from near average to severely below average. Statewide, mountain snow water content was 85 percent of average and 75 percent of last year. West of the Continental Divide, snowpack was 89 percent of average and 61 percent of last year. East of the continental Divide, snowpack was 73 percent of average and 93 percent of last year.

RIVER BASIN	% OF AVERAGE	% OF LAST YEAR
COLUMBIA	89	61
KOOTENAI	75	44
FLATHEAD	89	59
UPPER CLARK FORK	110	96
BITTERROOT	102	82
LOWER CLARK FORK	79	34
MISSOURI	74	83
MISSOURI HEADWATERS	78	109
JEFFERSON	86	125
MADISON	79	113
GALLATIN	76	87
MISSOURI MAINSTEM	70	56
HEADWATERS MAINSTEM	81	87
SMITH-JUDITH-MUSSELSHELL	79	78
SUN-TETON-MARIAS	47	26
MAINSTEM ABOVE FT. PECK RES	65	48
ST. MARY	92	68
YELLOWSTONE	70	104
UPPER YELLOWSTONE	88	111
LOWER YELLOWSTONE	48	95
WIND	28	82
SHOSHONE	73	119
BIGHORN	60	96
TONGUE	27	45
POWDER	23	227

Precipitation

May mountain and valley precipitation across the state was 85 percent of average and 93 percent of last year, while the water year precipitation was 93 percent of average and 98 percent of last year.

West of the Continental Divide, May mountain and valley precipitation was 88 percent of average and 80 percent of last year and the water year precipitation was 92 percent of average and 85 percent of last year. East of the Divide, May mountain and valley precipitation was 84 percent of average and 100 percent of last year and the water year precipitation was 94 percent of average and 111 percent of last year.

RIVER BASIN	MAY % OF AVERAGE	WATER YEAR % OF AVERAGE
COLUMBIA	88	92
KOOTENAI	72	86
FLATHEAD	93	86
UPPER CLARK FORK	92	100
BITTERROOT	90	105
LOWER CLARK FORK	81	91
MISSOURI	80	93
JEFFERSON	73	96
MADISON	97	91
GALLATIN	82	89
MISSOURI MAINSTEM	90	102
SMITH-JUDITH-MUSSELSHELL	86	101
SUN-TETON-MARIAS	58	83
MILK	81	90
ST. MARY	69	83
YELLOWSTONE	84	96
UPPER YELLOWSTONE	83	97
LOWER YELLOWSTONE (WYOMING)	86	96
WIND	75	85
SHOSHONE	81	103
BIGHORN	67	86
TONGUE	76	105
POWDER	68	97

Reservoirs

Major reservoir storages statewide were 91 percent of average and 104 percent of last year. Reservoir storage west of the Continental Divide was 126 percent of average and 113 percent of last year. East of the Continental Divide, reservoir storages were 78 percent of average and 99 percent of last year.

RIVER BASIN	% OF AVERAGE	% OF LAST YEAR
COLUMBIA	126	113
KOOTENAI	149	125
FLATHEAD	110	104
UPPER CLARK FORK	102	111
BITTERROOT	119	113
LOWER CLARK FORK	106	102
MISSOURI	78	98
JEFFERSON	50	105
MADISON	110	102
GALLATIN	129	96
MISSOURI MAINSTEM	75	96
SMITH-JUDITH-MUSSELSHELL	54	198
SUN-TETON-MARIAS	117	117
MILK	108	281
ST. MARY	94	131
YELLOWSTONE	84	111
UPPER YELLOWSTONE	126	118
LOWER YELLOWSTONE	82	110

Streamflow

SEASONAL STREAMFLOW FORECASTS

Statewide, streamflow forecasts average between 64 and 78 percent of average. West of the Continental Divide, streamflow forecasts average between 71 and 82 percent and east of the Continental Divide, streamflow forecasts average between 59 and 75 percent. Most streams have crested from snow melt runoff for this year.

Below are River Basin streamflow forecast summaries for the period May 1 through July 31. THESE FORECASTS ASSUME NEAR NORMAL SPRING CONDITIONS AND DO NOT ACCOUNT FOR WELL BELOW AVERAGE (70% or less) OR WELL ABOVE AVERAGE (130% or more) SNOWMELT OR SPRING RAIN. Specific forecast probabilities are available in each individual River Basin Report.

RIVER BASIN	June-July THIS YEAR % OF AVERAGE	June-July LAST YEAR % OF AVERAGE
COLUMBIA	71 to 82	94 to 105
KOOTENAI	59 to 71	104 to 116
FLATHEAD	62 to 72	100 to 109
UPPER CLARK FORK	78 to 94	67 to 83
BITTERROOT	92 to 102	91 to 100
LOWER CLARK FORK	62 to 69	107 to 116
MISSOURI	57 to 73	65 to 78
JEFFERSON	57 to 75	59 to 75
MADISON	78 to 86	70 to 75
GALLATIN	71 to 83	59 to 67
MISSOURI MAINSTEM	71 to 86	74 to 91
SMITH-JUDITH-MUSSELSHELL	53 to 75	47 to 60
SUN-TETON-MARIAS	39 to 52	102 to 121
MILK	46 to 69	44 to 61
ST. MARY	67 to 84	110 to 116
YELLOWSTONE	66 to 79	52 to 62
UPPER YELLOWSTONE	75 to 89	67 to 76
LOWER YELLOWSTONE	53 to 65	37 to 48

NOTE: The MAY-JULY LAST YEAR % OF AVERAGE column above is last years forecasts on May 1, NOT of what actually occurred.

Snow Melt Peak Streamflow Forecasts

COLUMBIA RIVER	
Tobacco River near Eureka	Peaked on May 30 at 60%
Fisher River near Libby	Peaked on May 26 at 51%
Yaak River near Troy	Peaked on May 26 at 54%
North Fork Flathead River near Columbia Falls	Peaked on May 30 at 81%
Middle Fork Flathead River near West Glacier	Peaked on May 26 at 95%
South Fork Flathead River above Twin Creeks	Peaked on May 30 at 102%
Hungry Horse Reservoir inflow	Peaked on May 30
Stillwater River near Whitefish	Peaked on June 3 at 39%
Swan River at Big Fork	Peaked on June 2 at 106%
Lower Willow Reservoir inflow	Peaked on May 26
Blackfoot River near Bonner	Peaked on May 30 at 92%
Clark Fork above Missoula	Peaked on May 31 at 103%
Clark Fork below Missoula	Peaked on June 1 at 135%
Bitterroot River near Darby	Peaked on May 31 at 143%
Nevada Creek near Finn	Peaked on May 26-27 at 69%
Middle Fork Rock Creek	Peaked on May 31 at 177%
Thompson River near Thompson Falls	Peaked on May 26 at 62%
Prospect Creek at Thompson Falls	Peaked on May 26 & 29 at 64%
Clark Fork at St. Regis	Peaked on June 1 at 121%
MISSOURI RIVER	
Clark Canyon Reservoir inflow	Peaked on June 3 at 22%
Ruby Reservoir inflow	Peaked on May 31 at 100%
Big Hole below Big Lake near Wisdom	Peaked on June 1 at 107%
Big Hole near Melrose	Peaked on June 1 at 128%
Hebgen Reservoir inflow	Peaked on May 30 at 102%
Hyalite Reservoir inflow	Peaked on May 30 at 107%
Gallatin River near Gateway	Peaked on May 30 at 112%
Gallatin River near Logan	Peaked on May 31 at 100%
Boulder near Boulder	Peaked on May 29 at 90%
Jefferson River near Three Forks	Peaked on June 2 at 113%
Missouri at Toston	Peaked on June 2 at 108%
Dearborn River near Craig	Peaked on May 26 at 43%
Musselshell near Harlowton	Peaked on May 28 at 31%
Sheep Creek near White Sulphur Springs	May 25 to May 31
Smith River at Ft. Logan	May 27 to June 2
Smith River below Eagle Creek	Peaked on May 31
Gibson Reservoir inflow	Peaked on May 30 at 68%
Swift Reservoir inflow	May 25 to May 31
Beaver Creek near Havre	Peaked on March 13
Prickly Pear near Clancy	Peaked on May 31
YELLOWSTONE RIVER	
Yellowstone River at Lake Outlet	June 9 to June 15
Yellowstone at Corwin Springs	Peaked on June 1 at 117%
Yellowstone at Livingston	May 29 to June 4
Shields River near Livingston	Peaked on May 27
Boulder near Big Timber	Peaked on May 30 at 107%
Stillwater near Absarokee	Peaked on May 30 at 93%
Clarks Fork near Belfry	Peaked on May 30 at 129%
Yellowstone at Billings	May 29 to June 4
Little Bighorn near Hardin	May 28 to June 3
Powder River at Moorhead	Peaked on May 31 at 34%
Hudson Bay	
Inflow to Lake Sherburne	Peaked on May 26 at 89%
St. Mary River at International Boundary	Peaked on May 31 at 67%

Surface Water Supply Index

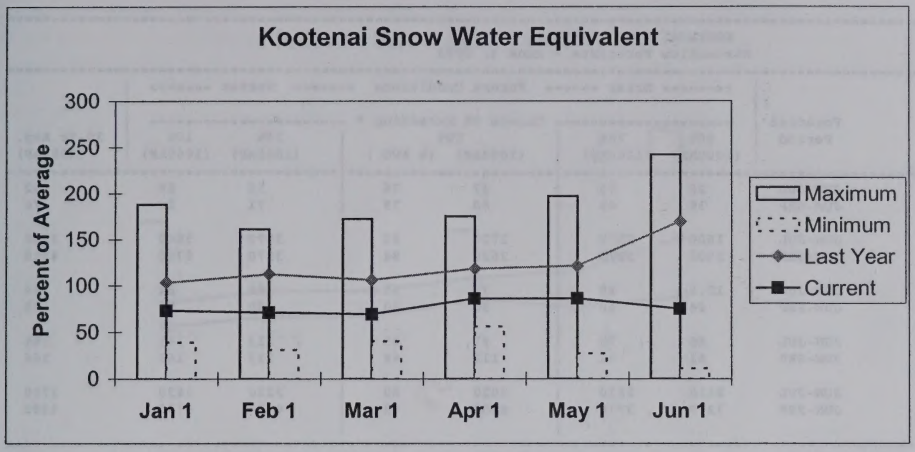
The Surface Water Supply Index (SWSI) is an indicator of surface water supply conditions for the spring and summer months. Water users that rely on mountain precipitation can use the index to evaluate seasonal surface water supplies. The SWSI accounts for mountain snowpack, mountain precipitation, streamflow, reservoir storage, and soil moisture.

SWSI RATING	SURFACE WATER CONDITION
+3.0 to +4.0	Extremely Wet
+2.0 to +3.0	Moderately Wet
+1.0 to +2.0	Slightly Wet
-1.0 to +1.0	Near Average
-1.0 to -2.0	Slightly Dry
-2.0 to -3.0	Moderately Dry
-3.0 to -4.0	Extremely Dry

SWSI	Basin
-2.4	Tobacco River
-1.2	Kootenai Ft. Steele to Libby Dam
-1.5	Kootenai River below Libby Dam
-2.8	Fisher River
-3.0	Yaak River
-2.7	North Fork Flathead River
-2.4	Middle Fork Flathead River
-0.8	South Fork Flathead River
-2.5	Flathead River at Columbia Falls
-2.6	Stillwater/Whitefish Rivers
-2.2	Swan River
-2.9	Flathead River at Polson
-1.6	Mission Valley
-2.3	Little Bitterroot River
+0.9	Clark Fork River above Milltown
-1.2	Blackfoot River
+1.5	Bitterroot River
+0.3	Clark Fork River below Bitterroot River
-1.8	Clark Fork River below Flathead River
-3.7	Beaverhead River
-1.5	Ruby River
-0.4	Big Hole River
+0.9	Boulder River (Jefferson)
-1.0	Jefferson River
+0.4	Madison River
+0.1	Gallatin River
-1.2	Missouri River above Canyon Ferry
-0.8	Missouri River below Canyon Ferry
-0.5	Smith River
-2.6	Sun River
-1.7	Teton River
-1.5	Birch/Dupuyer Creeks
-1.5	Marias River above Tiber
+0.4	Marias River below Tiber
-2.0	Musselshell River
+0.4	Missouri River above Ft. Peck
-2.5	Missouri River below Ft. Peck
-0.8	Milk River
-2.4	Dearborn River near Craig
-0.8	Yellowstone River above Livingston
-0.8	Shields River
-0.6	Boulder River (Yellowstone)
+0.3	Stillwater River
+0.9	Rock/Red Lodge Creeks
-0.3	Clarks Fork River
-0.5	Yellowstone River above Bighorn River
-3.7	Bighorn River below Bighorn Lake
-1.1	Little Bighorn River
-1.9	Yellowstone River below Bighorn River
-1.6	Tongue River
-2.7	Powder River

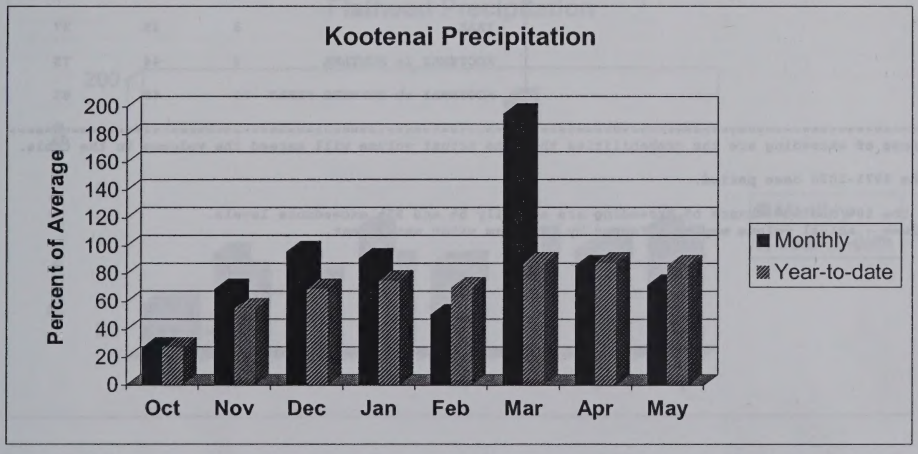
Kootenai River Basin in Montana

Snowpack conditions in the Kootenai River Basin were below average for this time of year. Snow water content was 75 percent of average and 44 percent of last year.



January maximum swe was established in 1997 and minimum was in 1977; February maximum swe was in 1997 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1974 and minimum swe was in 2001; May maximum swe was in 1974 and minimum swe was in 1977; and June maximum swe was in 1974 and minimum swe was in 1992. Average is for the period 1971 through 2000.

Mountain precipitation during May was 75 percent of average and 52 percent of last year. Valley precipitation during May was 40 percent of average and 31 percent of last year. Mountain and valley water year precipitation, beginning October 1, 2002, was 86 percent of average and 68 percent of last year.



Lake Koocanusa storage was 149 percent of average and 125 percent of last year.

For streamflow snow melt peak dates and volumes refer to the statewide summary.

Surface Water Supply Index (SWSI) was -2.4 in the Tobacco River; -1.2 in the Kootenai Ft. Steele to Libby Dam; -1.5 in the Kootenai River below Libby Dam; -2.8 in the Fisher River; and -3.0 in the Yaak River.

KOOTENAI RIVER BASIN in Montana
Streamflow Forecasts - June 1, 2003

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
TOBACCO RIVER nr Eureka	JUN-JUL	26	38	47	76	56	68	62
	JUN-SEP	34	49	60	79	71	86	76
LIBBY RES Inflow (1,2)	JUN-JUL	1600	2370	2720	82	3070	3840	3310
	JUN-SEP	2500	3270	3620	84	3970	4740	4310
FISHER RIVER nr Libby	JUN-JUL	15.8	30	39	61	48	62	64
	JUN-SEP	24	40	50	60	60	76	84
YAAK RIVER nr Troy	JUN-JUL	45	73	93	65	113	141	144
	JUN-SEP	61	91	112	68	133	163	166
KOOTENAI at Leonia (1,2)	JUN-JUL	2410	2830	3020	80	3210	3630	3790
	JUN-SEP	3270	3770	4000	82	4230	4730	4880

KOOTENAI RIVER BASIN in Montana
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
LAKE KOOCANUSA	5748.0	4754.0	3797.0	3193.1

KOOTENAI RIVER BASIN in Montana
Watershed Snowpack Analysis - June 1, 2003

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
KOOTENAY in CANADA	7	54	96
KOOTENAI MAINTSTEM	4	38	73
TOBACCO	2	66	103
FISHER	1	0	0
YAAK	3	25	37
KOOTENAI in MONTANA	9	44	75
KOOTENAI ab BONNERS FERRY	16	48	85

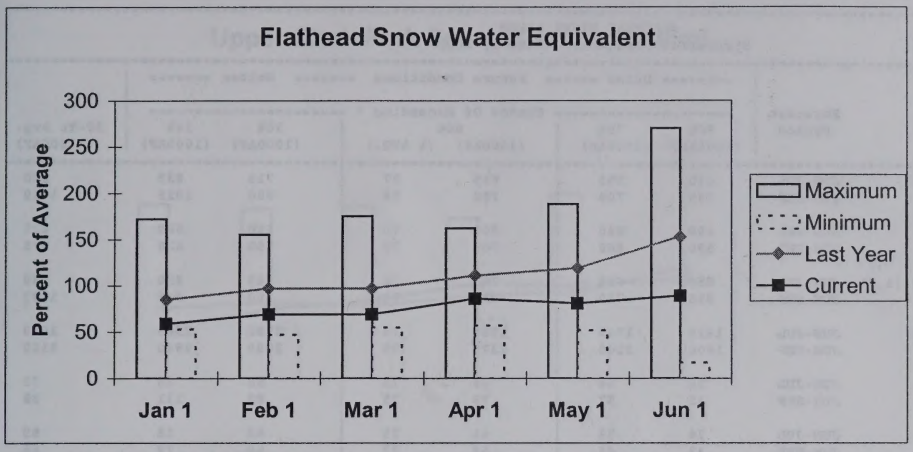
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

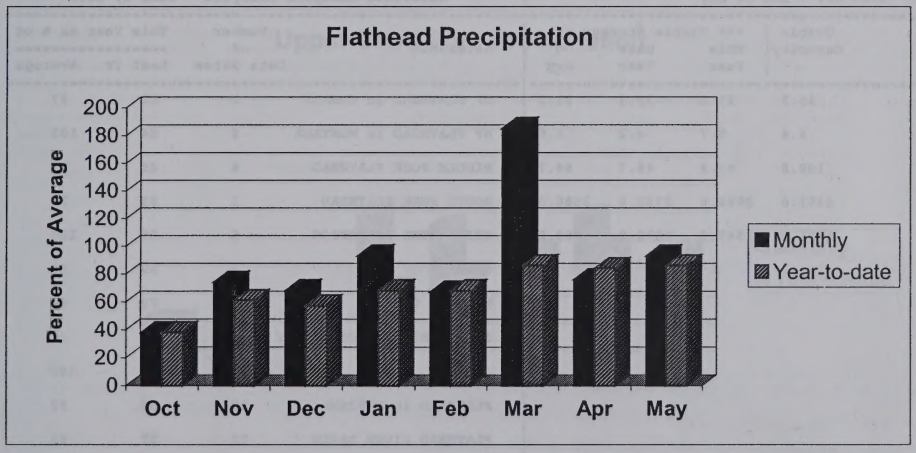
Flathead River Basin

Snowpack conditions in the Flathead River Basin were below average. Snow water content was 89 percent of average and 59 percent of last year.



January maximum swe was established in 1997 and minimum was in 2001; February maximum swe was in 1972 and minimum was in 2001; March maximum swe was in 1972 and minimum was in 2001; April maximum swe was in 1972 and minimum was in 2001; May maximum swe was in 1972 and minimum was in 1992; and June maximum swe was in 1974 and minimum was in 1992. Average is for the period 1971 through 2000.

Mountain precipitation during May was 93 percent of average and 82 percent of last year. Valley precipitation during May was 91 percent of average and 74 percent of last year. Mountain and valley water year precipitation, beginning October 1, 2002, was 86 percent of average and 79 percent of last year.



Combined Camas reservoir storage was 74 percent of average and 79 percent of last year; Lower Jocko Lake was 163 percent of average and 136 percent of last year; combined Mission Valley reservoir storage was 66 percent of average and 97 percent of last year; Hungry Horse storage was 115 percent of average and 107 percent of last year; and Flathead Lake storage was 103 percent of average and 99 percent of last year.

For streamflow snow melt peak dates and volumes refer to the statewide summary.

Surface Water Supply Index (SWSI) was -2.7 in the North Fork Flathead River; -2.4 in the Middle Fork Flathead River; -0.8 in the South Fork Flathead River; -2.5 in the Flathead River at Columbia Falls; -2.6 in the Stillwater/Whitefish Rivers; -2.2 in the Swan River; -2.9 in the Flathead River at Polson; -1.6 in the Mission Valley; and -2.3 in the Little Bitterroot River.

FLATHEAD RIVER BASIN
Streamflow Forecasts - June 1, 2003

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
NF FLATHEAD nr Columbia Falls	JUN-JUL	435	555	635	77	715	835	830
	JUN-SEP	565	700	790	78	880	1015	1010
MF FLATHEAD nr West Glacier	JUN-JUL	480	540	580	70	620	680	825
	JUN-SEP	590	660	705	72	750	820	975
HUNGRY HORSE Reservoir Inflow (1,2)	JUN-JUL	550	655	700	73	745	850	960
	JUN-SEP	655	760	810	74	860	965	1090
FLATHEAD at Columbia Falls (2)	JUN-JUL	1420	1740	1960	73	2180	2500	2690
	JUN-SEP	1800	2140	2370	75	2600	2940	3160
STILLWATER nr Whitefish	JUN-JUL	26	44	56	72	68	86	78
	JUN-SEP	35	57	73	75	89	111	98
WHITEFISH nr Kalispell	JUN-JUL	24	34	41	75	48	58	55
	JUN-SEP	32	44	52	77	60	72	68
ASHLEY CREEK nr Marion (2)	JUN-JUL	0.10	0.42	0.76	47	1.47	2.53	1.61
SWAN RIVER nr Bigfork	JUN-JUL	225	245	255	84	265	285	305
	JUN-SEP	300	315	325	84	335	350	385
FLATHEAD Lake Inflow (1,2)	JUN-JUL	1820	2150	2300	74	2450	2780	3110
	JUN-SEP	2120	2540	2730	75	2920	3340	3620

FLATHEAD RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CAMAS (4)	45.2	23.1	29.4	31.2
LOWER JOCKO LAKE	6.4	5.7	4.2	3.5
MISSION VALLEY (8)	100.0	45.3	46.7	68.7
HUNGRY HORSE	3451.0	2988.0	2786.0	2588.0
FLATHEAD LAKE	1791.0	1547.0	1570.0	1499.2

FLATHEAD RIVER BASIN
Watershed Snowpack Analysis - June 1, 2003

Watershed	Number of Data Sites	This Year as % of Average: Last Yr	Average
NF FLATHEAD in CANADA	2	21	97
NF FLATHEAD in MONTANA	6	64	103
MIDDLE FORK FLATHEAD	4	49	75
SOUTH FORK FLATHEAD	2	68	76
STILLWATER-WHITEFISH	5	59	120
SWAN	4	69	85
MISSION VALLEY	2	79	90
LITTLE BITTERROOT-ASHLEY	0	0	0
JOCKO	4	54	100
FLATHEAD in MONTANA	20	59	92
FLATHEAD RIVER BASIN	22	57	92

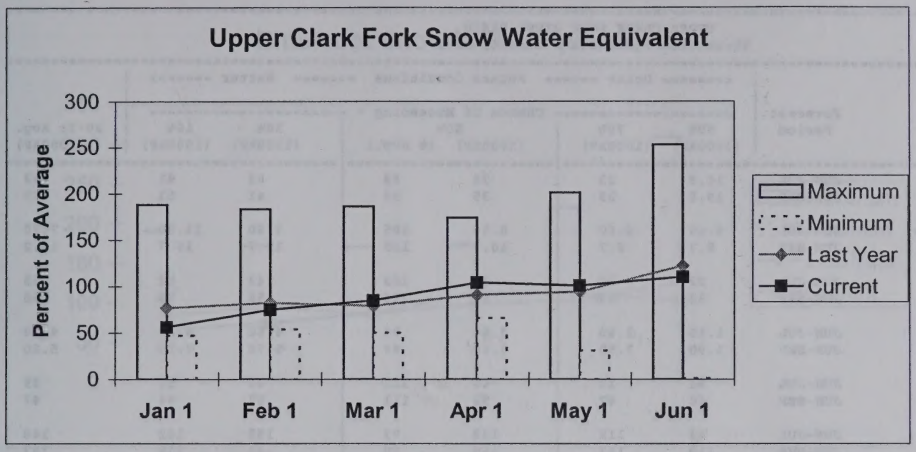
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

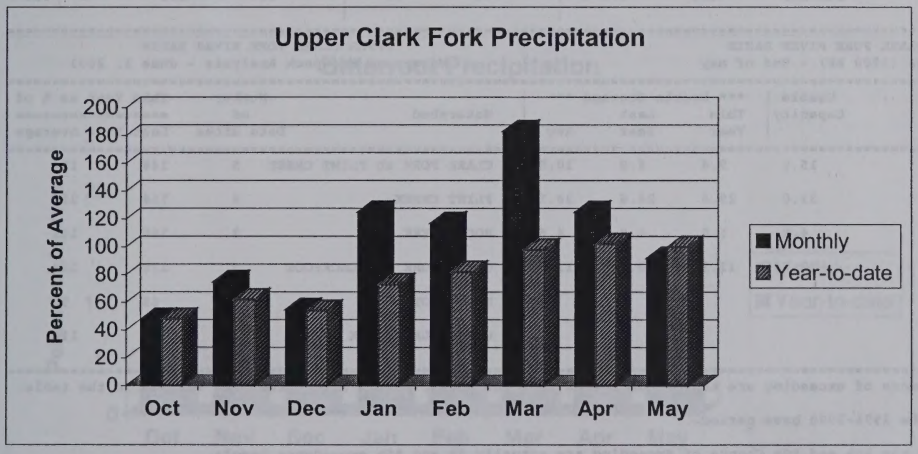
Upper Clark Fork River Basin

Snowpack conditions in the Upper Clark Fork River Basin were above average. Snow water content was 110 percent of average and 96 percent of last year.



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum was in 1994; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum swe was in 1975 and minimum swe was in 1987. Average is for the period 1971 through 2000.

Mountain precipitation during May was 91 percent of average and 105 percent of last year. Valley precipitation during May was 99 percent of average and 173 percent of last year. Mountain and valley water year precipitation, beginning October 1, 2002, was 100 percent of average and 106 percent of last year.



Lower Willow Creek storage was 109 percent of average and 102 percent of last year; and Nevada Creek storage was 102 percent of average and 112 percent of last year.

For streamflow snow melt peak dates and volumes refer to the statewide summary.

Surface Water Supply Index (SWSI) was +0.9 in the Clark Fork River above Milltown and -1.2 in the Blackfoot River.

UPPER CLARK FORK RIVER BASIN
Streamflow Forecasts - June 1, 2003

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
LITTLE BLACKFOOT nr Garrison	JUN-JUL	14.8	23	28	88	33	41	32
	JUN-SEP	19.0	29	35	90	41	51	39
FLINT CREEK nr Southern Cross	JUN-JUL	4.40	6.60	8.10	105	9.60	11.80	7.70
	JUN-SEP	5.7	8.7	10.7	105	12.7	15.7	10.2
FLINT CREEK blw Boulder Ck	JUN-JUL	22	30	36	109	42	50	33
	JUN-SEP	32	44	51	106	58	70	48
LOWER WILLOW CK RES Inflow	JUN-JUL	1.15	2.60	3.60	84	4.60	6.00	4.30
	JUN-SEP	1.90	3.50	4.60	89	5.70	7.30	5.20
MF ROCK CREEK nr Philipsburg	JUN-JUL	34	40	44	113	48	54	39
	JUN-SEP	40	47	52	111	57	64	47
ROCK CREEK nr Clinton	JUN-JUL	83	112	132	89	152	182	148
	JUN-SEP	110	143	165	90	189	219	183
CLARK FORK abv Milltown	JUN-JUL	190	275	335	106	395	480	315
	JUN-SEP	265	365	435	106	505	605	410
NEVADA CREEK nr Finn	JUN-JUL	2.80	4.80	6.10	87	7.40	9.40	7.00
	JUN-SEP	4.00	6.10	7.60	89	9.10	11.20	8.50
BLACKFOOR RIVER nr Bonner	JUN-JUL	160	220	260	68	300	360	380
	JUN-SEP	225	290	335	71	380	445	470
CLARK FORK abv Missoula	JUN-JUL	425	525	595	86	665	765	695
	JUN-SEP	580	690	770	88	850	965	880

UPPER CLARK FORK RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
EAST FORK ROCK CREEK	15.6	9.4	6.0	10.5
GEORGETOWN LAKE	31.0	29.6	28.6	28.1
LOWER WILLOW CREEK	4.9	5.0	4.9	4.6
NEVADA CREEK	12.6	11.3	10.1	11.1

UPPER CLARK FORK RIVER BASIN
Watershed Snowpack Analysis - June 1, 2003

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
CLARK FORK ab FLINT CREEK	5	148	104
FLINT CREEK	4	714	214
ROCK CREEK	2	166	143
CLARK FORK ab BLACKFOOT	9	178	124
BLACKFOOT	7	65	97
UPPER CLARK FORK BASIN	16	96	110

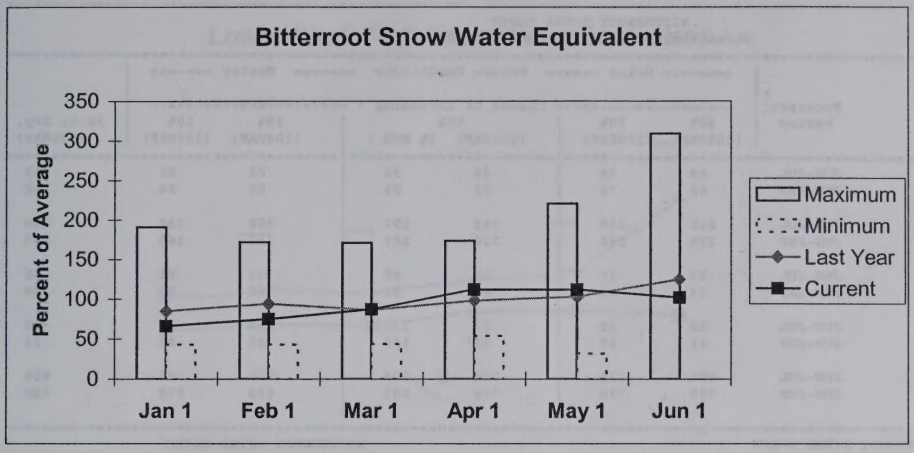
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

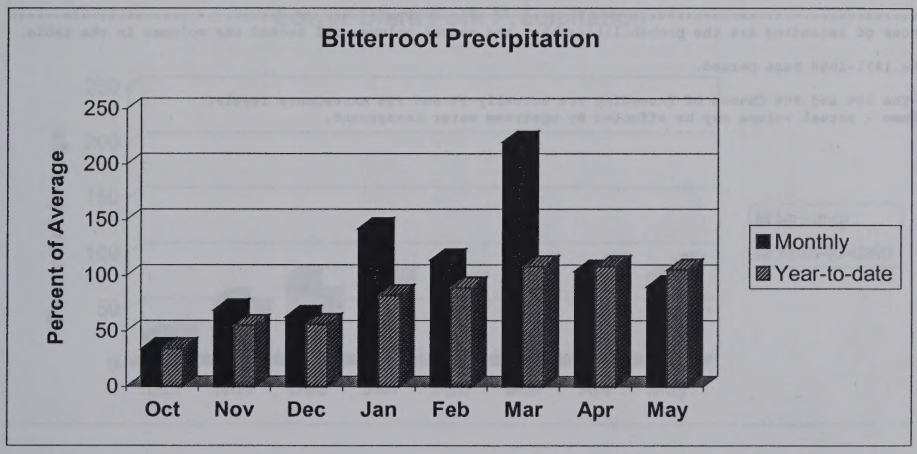
Bitterroot River Basin

Snowpack conditions in the Bitterroot River Basin were near average. Snow water content was 102 percent of average and 82 percent of last year.



January maximum swe was established in 1997 and minimum swe in 1977; February maximum swe was in 1972 and minimum was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 2001; May maximum swe was in 1972 and minimum swe was in 1987; and June maximum swe was 1972 and 1974 and minimum swe was in 1987, 1992, 1994, and 2001. Average is for the period 1971 through 2000.

Mountain precipitation during May was 91 percent of average and 78 percent of last year. Valley precipitation during May was 84 percent of average and 74 percent of last year. Mountain and valley water year precipitation, beginning October 1, 2002, was 105 percent of average and 103 percent of last year.



Painted Rocks Lake storage was 110 percent of average and 101 percent of last year and Como storage was 129 percent of average and 127 percent of last year.

For streamflow snow melt peak dates and volumes refer to the statewide summary.

Surface Water Supply Index (SWSI) was +1.5 in the Bitterroot River.

BITTERROOT RIVER BASIN
Streamflow Forecasts - June 1, 2003

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
WF BITTERROOT nr Conner (2)	JUN-JUL	49	59	66	96	73	83	69
	JUN-SEP	60	72	79	96	86	98	82
BITTERROOT nr Darby	JUN-JUL	210	230	245	102	260	280	240
	JUN-SEP	275	300	320	109	340	365	295
COMO RESERVOIR Inflow	JUN-JUL	21	30	36	90	42	51	40
	JUN-SEP	24	34	40	91	46	56	44
SKALKAHO CK nr Hamilton	JUN-JUL	25	29	31	115	33	37	27
	JUN-SEP	31	35	38	115	41	45	33
BITTERROOT at Missoula	JUN-JUL	605	675	725	105	775	845	690
	JUN-SEP	705	790	840	105	890	970	800

BITTERROOT RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
PAINTED ROCKS LAKE	31.7	33.6	33.2	30.5
COMO	34.9	37.2	29.2	28.9

BITTERROOT RIVER BASIN
Watershed Snowpack Analysis - June 1, 2003

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
WEST FORK BITTERROOT	2	101	96
EAST SIDE BITTERROOT	3	114	109
WEST SIDE BITTERROOT	3	60	95
BITTERROOT RIVER BASIN	7	82	102

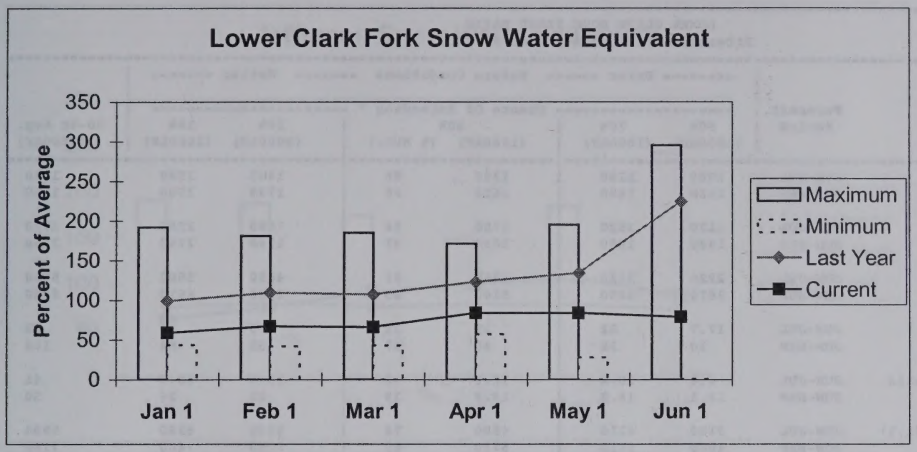
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

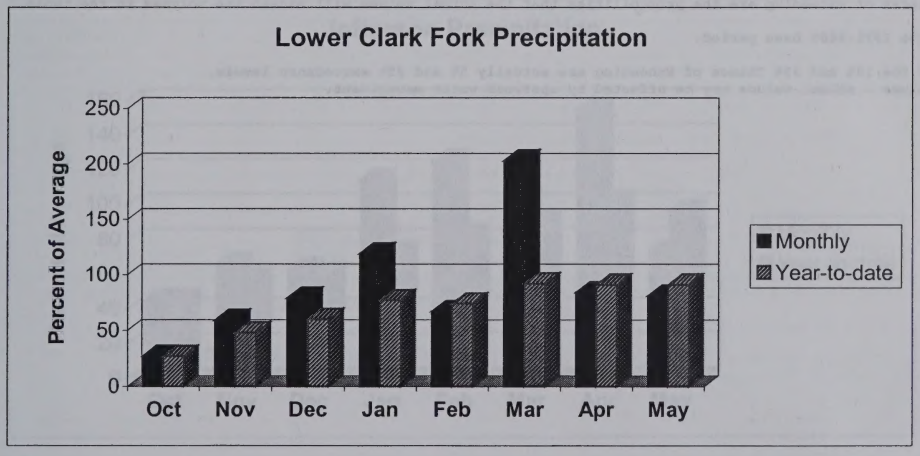
Lower Clark Fork River Basin

Snowpack conditions in the Lower Clark Fork River Basin were below average. Snow water content was 79 percent of average and 34 percent of last year.



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum swe was in 1981; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum swe was in 1974 and minimum swe was in 1977. Average is for the period 1971 through 2000.

Mountain precipitation during May was 81 percent of average and 59 percent of last year. Valley precipitation during May was 82 percent of average and 67 percent of last year. Mountain and valley water year precipitation, beginning October 1, 2002, was 91 percent of average and 76 percent of last year.



Noxon Rapids storage was 106 percent of average and 102 percent of last year.

For streamflow snow melt peak dates and volumes refer to the statewide summary.

Surface Water Supply Index (SWSI) was +0.3 in the Clark Fork River below Bitterroot River and -1.8 in the Clark Fork River below Flathead River.

LOWER CLARK FORK RIVER BASIN
Streamflow Forecasts - June 1, 2003

Forecast Point	Forecast Period	<<======= Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
CLARK FORK blw Missoula	JUN-JUL	1060	1220	1320	96	1420	1580	1380
	JUN-SEP	1320	1490	1610	96	1730	1900	1680
CLARK FORK at St. Regis (1)	JUN-JUL	1120	1520	1700	96	1880	2280	1770
	JUN-SEP	1440	1890	2090	97	2290	2740	2160
CLARK FORK nr Plains (1,2)	JUN-JUL	2920	3830	4240	83	4650	5560	5090
	JUN-SEP	3670	4680	5140	85	5600	6610	6080
THOMPSON nr Thompson Falls	JUN-JUL	17.7	22	25	31	35	49	82
	JUN-SEP	30	36	40	37	51	68	108
PROSPECT CREEK at Thompson Falls	JUN-JUL	6.4	10.2	12.8	31	15.4	18.8	41
	JUN-SEP	12.1	16.2	18.9	38	22	26	50
CLARK FK at Whitehorse Rpds (1,2)	JUN-JUL	3180	4210	4680	78	5150	6180	5984
	JUN-SEP	4060	5210	5730	80	6250	7400	7166

LOWER CLARK FORK RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
NOXON RAPIDS	335.0	332.7	327.4	313.6

LOWER CLARK FORK RIVER BASIN
Watershed Snowpack Analysis - June 1, 2003

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
LOWER CLARK FORK BASIN	7	34	79

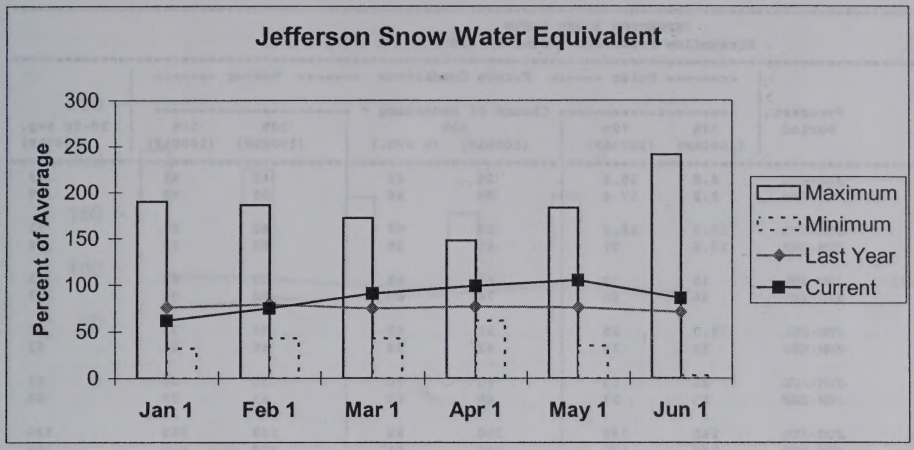
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

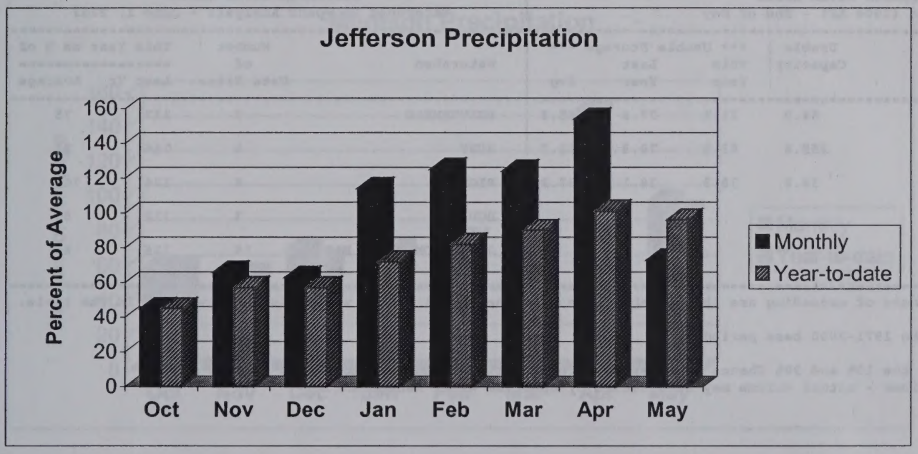
Jefferson River Basin

Snowpack conditions in the Jefferson River Basin were below average. Snow water content was 86 percent of average and 125 percent of last year.



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum swe was in 1997 and minimum was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1997 and minimum was in 1977; May maximum swe was in 1975 and minimum swe was in 1977; and June maximum swe was in 1982 and minimum in 1987. Average is for the period 1971 through 2000.

Mountain precipitation during May was 76 percent of average and 90 percent of last year. Valley precipitation during May was 79 percent of average and 113 percent of last year. Mountain and valley water year precipitation, beginning October 1, 2002, was 96 percent of average and 116 percent of last year.



Lima storage was 47 percent of average and 113 percent of last year; Clark Canyon storage was 40 percent of average and 90 percent of last year; and Ruby River storage was 101 percent of average and 136 percent of last year.

For streamflow snow melt peak dates and volumes refer to the statewide summary.

Surface Water Supply Index (SWSI) was -3.7 in the Beaverhead River; -1.5 in the Ruby River; -0.4 in the Big Hole River; +0.9 in the Boulder River; and -1.0 in the Jefferson River as a whole.

JEFFERSON RIVER BASIN
Streamflow Forecasts - June 1, 2003

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
LIMA RESERVOIR Inflow (2)	JUN-JUL	6.5	15.4	24	62	33	45	39
	JUN-SEP	9.2	17.8	28	60	38	53	47
CLARK CANYON Inflow (2)	JUN-JUL	10.7	16.0	29	57	42	61	51
	JUN-SEP	18.6	27	45	59	63	90	76
BEAVERHEAD RIVER at Barretts (2)	JUN-JUL	28	38	45	63	52	62	71
	JUN-SEP	46	60	70	68	80	94	103
RUBY RIVER Reservoir Inflow	JUN-JUL	19.0	25	29	63	33	39	46
	JUN-SEP	33	38	42	68	46	51	62
BIG HOLE RIVER at Wisdom	JUN-JUL	22	33	40	70	56	80	57
	JUN-SEP	25	37	45	69	63	89	65
BIG HOLE RIVER nr Melrose	JUN-JUL	245	280	300	92	320	355	325
	JUN-SEP	285	320	345	91	370	405	380
BOULDER RIVER nr Boulder	JUN-JUL	10.0	25	35	97	45	60	36
	JUN-SEP	12.1	29	41	95	53	70	43
WILLOW CREEK Reservoir Inflow	JUN-JUL	3.0	6.4	10.0	93	13.6	19.0	10.8
	JUN-SEP	3.3	7.7	12.2	93	16.7	24	13.1
JEFFERSON RIVER nr Three Forks (2)	JUN-JUL	168	245	300	81	355	430	370
	JUN-SEP	167	275	350	78	425	535	450

JEFFERSON RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
LIMA	84.0	31.2	27.6	65.8
CLARK CANYON	255.6	63.8	70.8	161.2
RUBY RIVER	38.8	38.3	28.1	37.9

JEFFERSON RIVER BASIN
Watershed Snowpack Analysis - June 1, 2003

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
BEAVERHEAD	8	117	75
RUBY	5	146	91
BIGHOLE	8	124	101
BOULDER	3	112	69
JEFFERSON RIVER BASIN	19	125	86

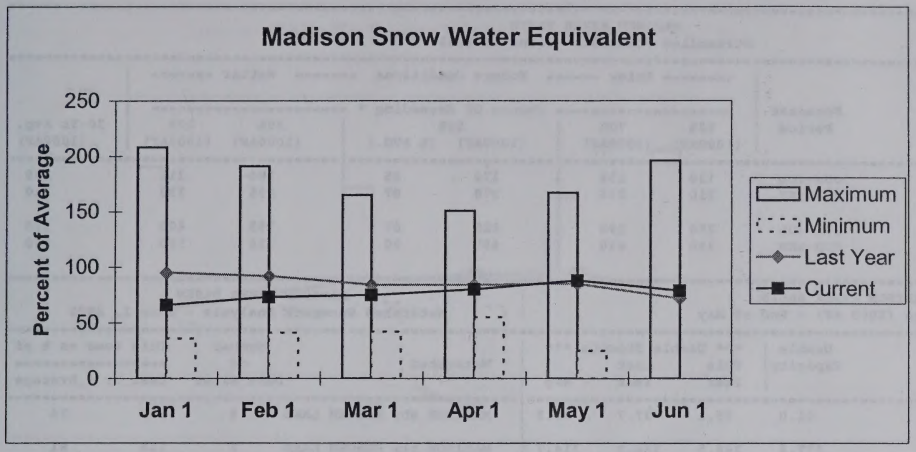
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

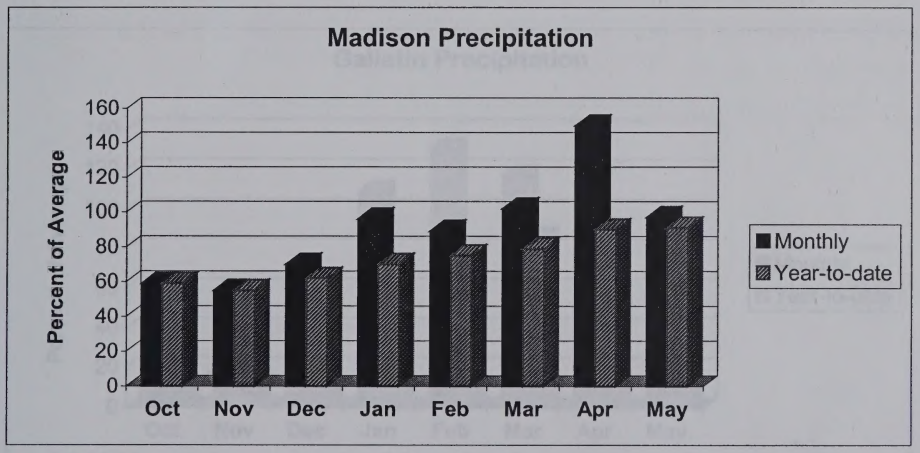
Madison River Basin

Snowpack conditions in the Madison River Basin were below average. Snow water content was 79 percent of average and 113 percent of last year.



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum swe was in 1997 and minimum was in 1977; March maximum swe was in 1997 and minimum was in 1977; April maximum swe was in 1997 and minimum was in 1977; May maximum swe was in 1997 and minimum swe was in 1977; and June maximum swe was in 1995 and minimum in 2001. Average is for the period 1971 through 2000.

Mountain and valley precipitation during May was 97 percent of average and 122 percent of last year. Mountain and valley water year precipitation, beginning October 1, 2002, was 91 percent of average and 103 percent of last year.



Ennis Lake storage was 99 percent of average and 93 percent of last year and Hebgen Lake storage was 111 percent of average and 103 percent of last year.

For streamflow snow melt peak dates and volumes refer to the statewide summary.

Surface Water Supply Index (SWSI) was +0.4 for the Madison River.

MADISON RIVER BASIN
Streamflow Forecasts - June 1, 2003

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
HEBGEN Reservoir Inflow	JUN-JUL	130	154	170	85	186	211	200
	JUN-SEP	210	245	270	87	295	330	310
ENNIS Reservoir Inflow (2)	JUN-JUL	250	295	325	87	355	400	375
	JUN-SEP	380	440	485	90	530	590	540

MADISON RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ENNIS LAKE	41.0	35.1	37.7	35.3
HEBGEN LAKE	377.5	348.5	338.0	314.7

MADISON RIVER BASIN
Watershed Snowpack Analysis - June 1, 2003

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
MADISON abv HEBGEN LAKE	4	102	74
MADISON blw HEBGEN LAKE	7	118	81
MADISON RIVER BASIN	11	113	79

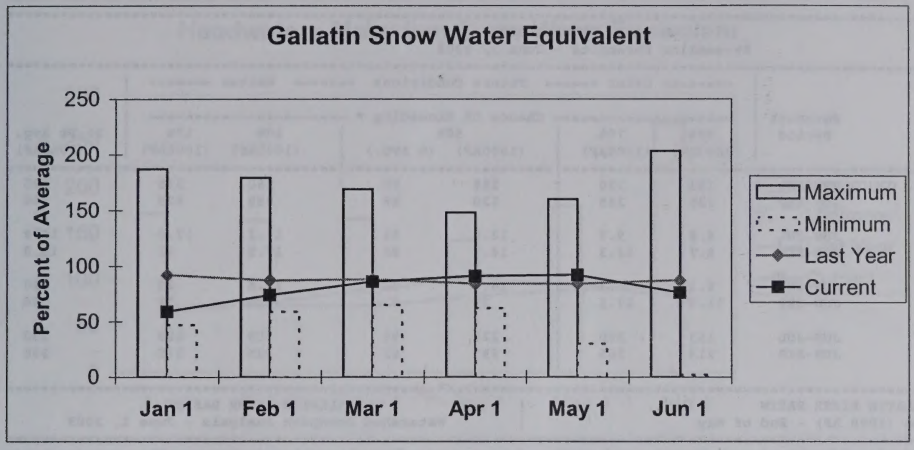
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

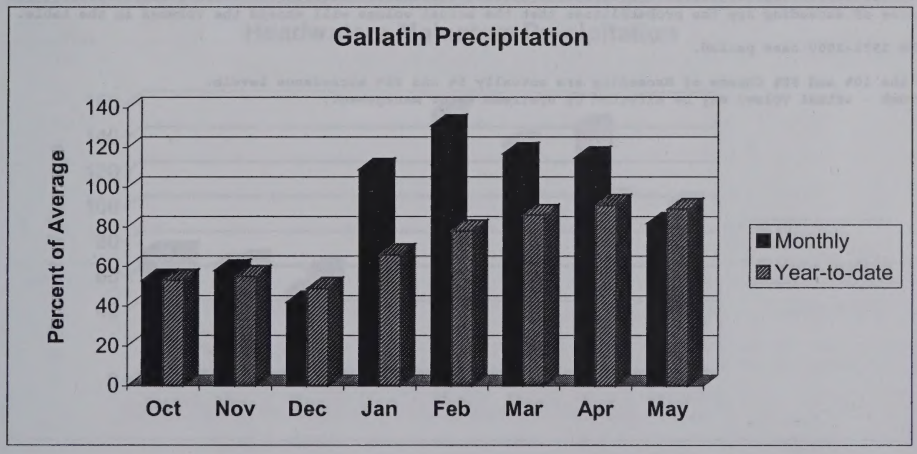
Gallatin River Basin

Snowpack conditions in the Gallatin River Basin were below average. Snow water content was 76 percent of average and 87 percent of last year.



January maximum swe was established in 1997 and minimum swe was in 1966; February maximum swe was in 1997 and minimum was in 1977; March maximum swe was in 1997 and minimum was in 1977; April maximum swe was in 1997 and minimum was in 2001; May maximum swe was in 1970 and minimum swe was in 1987; and June maximum swe was in 1975 and minimum in 2001. Average is for the period 1971 through 2000.

Mountain precipitation during May was 81 percent of average and 83 percent of last year. Valley precipitation during May was 88 percent of average and 71 percent of last year. Mountain and valley water year precipitation, beginning October 1, 2002, was 89 percent of average and 104 percent of last year.



Middle Creek storage was 129 percent of average and 96 percent of last year.

For streamflow snow melt peak dates and volumes refer to the statewide summary.

Surface Water Supply Index (SWSI) was +0.1 for the Gallatin River.

GALLATIN RIVER BASIN
Streamflow Forecasts - June 1, 2003

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
GALLATIN RIVER nr Gateway	JUN-JUL	193	230	255	90	280	315	285
	JUN-SEP	235	285	320	89	355	405	360
HYALITE RESERVOIR Inflow	JUN-JUL	6.8	9.9	12.0	81	14.1	17.0	14.9
	JUN-SEP	8.7	12.3	14.7	82	17.5	21	18.0
HYALITE CREEK nr Bozeman (2)	JUN-JUL	8.3	13.1	16.4	82	19.5	25	20
	JUN-SEP	11.4	17.1	21	81	25	31	26
GALLATIN RIVER at Logan (2)	JUN-JUL	163	200	225	80	250	285	280
	JUN-SEP	215	265	295	82	325	375	360

GALLATIN RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MIDDLE CREEK	10.2	9.8	10.2	7.6

GALLATIN RIVER BASIN
Watershed Snowpack Analysis - June 1, 2003

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
UPPER GALLATIN	3	99	76
HYALITE	2	101	80
BRIDGER	2	25	53
GALLATIN RIVER BASIN	7	87	76

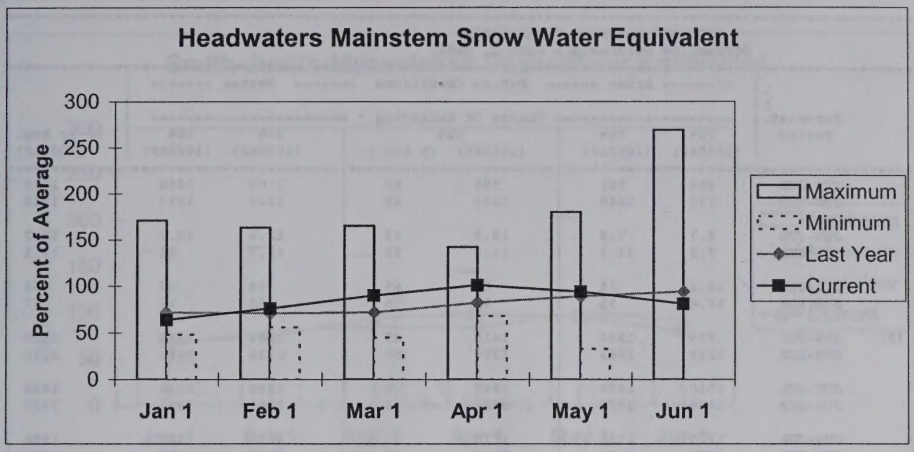
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

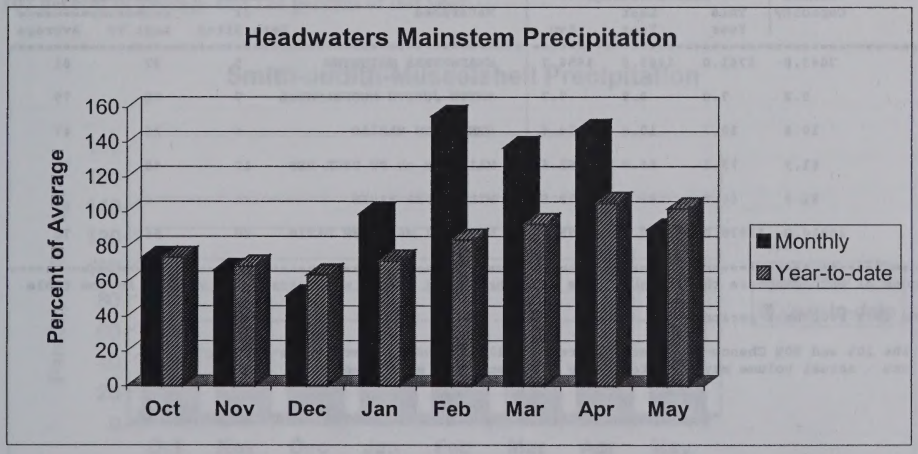
Missouri Mainstem River Basin

Snowpack conditions in the Headwaters Missouri Mainstem River Basin were below average. Snow water content was 81 percent of average and 87 percent of last year.



January maximum swe was established in 1997 and minimum swe in 1977; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1961 and 1966; May maximum swe was in 1975 and minimum swe was in 1977; and June maximum swe was in 1975 and minimum swe was in 1992. Average is for the period 1971 through 2000.

Mountain precipitation during May was 84 percent of average and 85 percent of last year. Valley precipitation during May was 93 percent of average and 148 percent of last year. Mountain and valley water year precipitation, beginning October 1, 2002, was 102 percent of average and 130 percent of last year.



Canyon Ferry Lake storage was 106 percent of average and 120 percent of last year; Helena Valley storage was 91 percent of average and 79 percent of last year; Lake Helena storage was 74 percent of average and 98 percent of last year; Hauser & Helena storage was 117 percent of average and 114 percent of last year; Holter Lake storage was 101 percent of average and 101 percent of last year; and Fort Peck Lake storage was 71 percent of average and 93 percent of last year.

For streamflow snow melt peak dates and volumes refer to the statewide summary.

Surface Water Supply Index (SWSI) was -1.2 in the Missouri River above Canyon Ferry; -0.8 in the Missouri River below Canyon Ferry; +0.4 in the Missouri River above Fort Peck; and -2.5 in the Missouri River below Fort Peck.

MISSOURI MAINSTEM RIVER BASIN
Streamflow Forecasts - June 1, 2003

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
MISSOURI RIVER at Toston (2)	JUN-JUL	550	760	905	83	1050	1260	1090
	JUN-SEP	735	1010	1200	85	1390	1670	1420
PRICKLY PEAR CREEK nr Clancy	JUN-JUL	4.7	7.8	10.0	98	12.2	15.3	10.2
	JUN-SEP	7.2	11.3	14.0	99	16.7	21	14.1
DEARBORN nr Craig	JUN-JUL	16.1	31	41	65	58	82	63
	JUN-SEP	18.4	35	47	70	65	92	67
MISSOURI RIVER at Fort Benton (2)	JUN-JUL	895	1200	1410	89	1620	1930	1580
	JUN-SEP	1239	1662	1950	90	2236	2661	2170
MISSOURI RIVER at Virgelle (2)	JUN-JUL	1040	1400	1640	90	1880	2240	1820
	JUN-SEP	1424	1898	2220	91	2541	3016	2430
MISSOURI RIVER nr Landusky (2)	JUN-JUL	1130	1510	1770	91	2030	2410	1950
	JUN-SEP	1545	2054	2400	92	2746	3256	2610
MISSOURI RIVER below Fort Peck (2)	JUN-JUL	1090	1470	1730	88	1990	2370	1960
	JUN-SEP	1405	1902	2240	88	2576	3076	2550
LAKE SAKAKAWEA Inflow (2)	JUN-JUL	2150	3281	4050	70	4819	5954	5800
	JUN-SEP	2779	4191	5150	71	6111	7521	7240

MISSOURI MAINSTEM RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CANYON FERRY LAKE	2043.0	1761.0	1469.0	1656.7
HELENA VALLEY	9.2	7.0	8.9	7.7
LAKE HELENA	10.4	10.7	10.9	14.4
HAUSER & HELENA	61.9	73.1	64.0	62.6
HOLTER LAKE	81.9	80.8	80.2	79.8
FORT PECK LAKE	18910.0	11070.0	11940.0	15495.0

MISSOURI MAINSTEM RIVER BASIN
Watershed Snowpack Analysis - June 1, 2003

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
HEADWATERS MAINSTEM	5	87	81
SMITH-JUDITH-MUSSELSHELL	7	78	79
SUN-TETON-MARIAS	6	26	47
MAINSTEM ab FT PECK RES	17	48	65
MILK RIVER BASIN	4	0	0
MISSOURI MAINSTEM BASIN	20	56	70

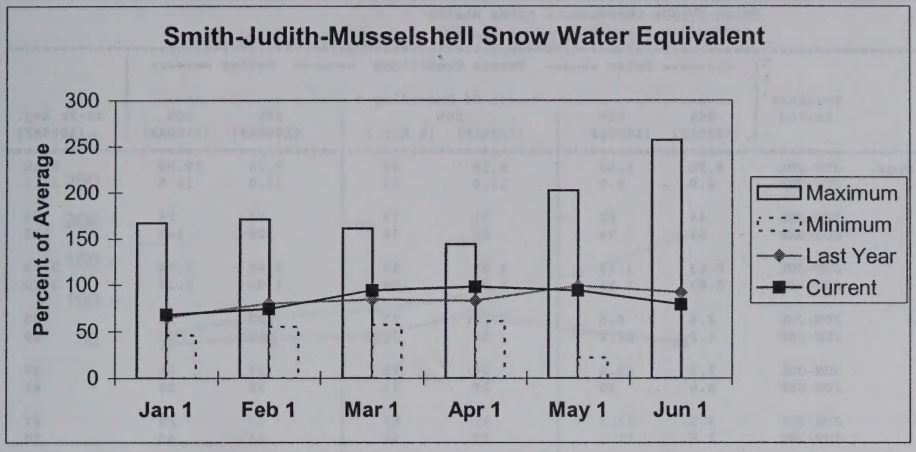
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

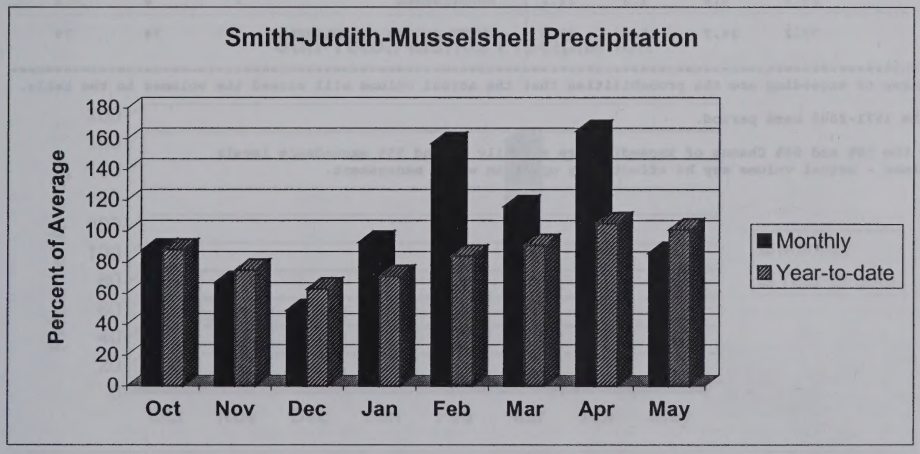
Smith-Judith-Musselshell River Basins

Snowpack conditions in the Smith-Judith-Musselshell River Basins were below average. Snow water content in the Smith was 92 percent of average and 82 percent of last year; Judith was 81 percent of average and 96 percent of last year; and the Musselshell had no snow remaining.



January maximum swe was established in 1997 and minimum swe in 1988; February maximum swe was in 1978 and minimum swe was in 1987; March maximum swe was in 1978 and minimum swe was in 1987; April maximum swe was in 1970 and minimum swe was in 1992; and May maximum swe was in 1970 and minimum swe was in 1987; and June maximum swe was in 1967 and minimum swe was in 1987, 1992, 1994,and 2001. Average is for the period 1971 through 2000.

Mountain and valley precipitation during May in the Smith-Belts was 78 percent of average and 94 percent of last year; in the Judith was 91 percent of average and 121 percent of last year; and in the Musselshell was 84 percent of average and 128 percent of last year. Mountain and valley water year precipitation, beginning October 1, 2002, was 101 percent of average and 124 percent of last year.



Smith River storage was 114 percent of average and 264 percent of last year; Bair storage was 71 percent of average and 124 percent of last year; Martinsdale storage was 48 percent of average and 677 percent of last year; and Deadman's Basin was 43 percent of average and 156 percent of last year.

For streamflow snow melt peak dates and volumes refer to the statewide summary.

Surface Water Supply Index (SWSI) was -0.5 in the Smith River and -2.0 in the Musselshell River.

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Streamflow Forecasts - June 1, 2003

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SHEEP CREEK nr White Sulphur Spgs.	JUN-JUL	4.20	6.50	8.10	89	9.70	12.00	9.10
	JUN-SEP	6.0	9.0	11.0	91	13.0	16.0	12.1
SMITH RIVER abv Eagle Creek	JUN-JUL	48	62	71	79	80	94	90
	JUN-SEP	42	74	95	76	116	148	125
NF MUSSELSHELL nr Delpine	JUN-JUL	0.53	1.19	1.95	85	2.68	3.78	2.30
	JUN-SEP	0.83	1.84	2.80	88	3.80	5.20	3.20
SF MUSSELSHELL abv Martinsdale	JUN-JUL	2.6	9.5	17.7	71	25	38	25
	JUN-SEP	4.2	12.2	21	72	30	43	29
MUSSELSHELL at Harlowton (2)	JUN-JUL	7.1	18.4	26	70	34	45	37
	JUN-SEP	8.0	20	29	71	38	50	41
MUSSELSHELL nr Roundup (2)	JUN-JUL	3.1	17.3	27	57	44	69	47
	JUN-SEP	2.6	17.1	27	54	44	69	50

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
SMITH RIVER	10.6	11.6	4.4	10.2
BAIR	7.0	4.2	3.4	5.9
MARTINSDALE	23.1	8.8	1.3	18.2
DEADMAN'S BASIN	72.2	24.7	15.8	57.6

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Watershed Snowpack Analysis - June 1, 2003

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
SMITH	4	82	92
JUDITH	4	96	81
MUSSELSHELL	2	0	0
SMITH-JUDITH-MUSSELSHELL	7	78	79

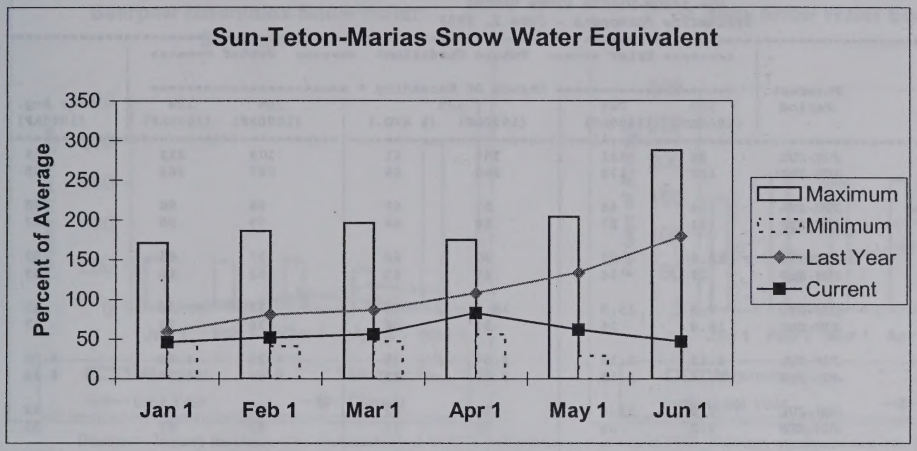
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

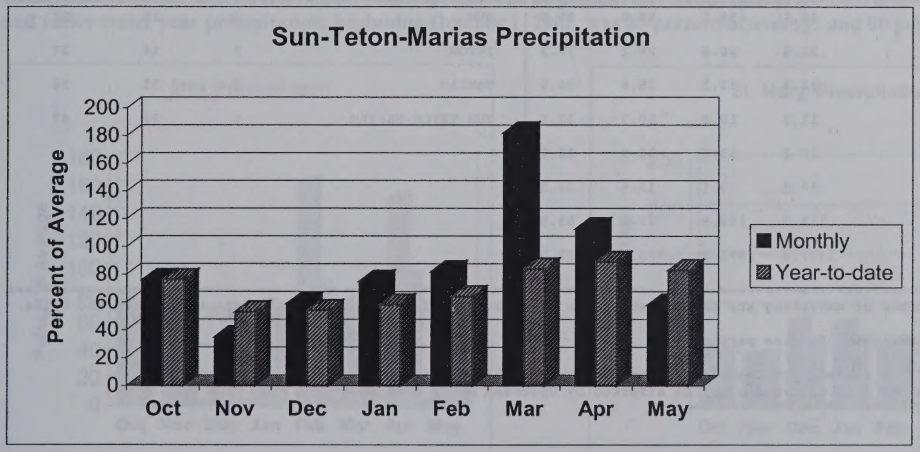
Sun-Teton-Marias River Basins

Snowpack conditions in the Sun-Teton-Marias River Basins were severely below average. Snow water content in the Sun was 27 percent of average and 14 percent of last year; Teton was 27 percent of average and 14 percent of average; and Marias was 54 percent of average and 31 percent of last year.



January maximum swe was established in 1997 and minimum swe was in 1988; February maximum swe was in 1972 and minimum swe was in 2001; March maximum swe was in 1972 and minimum swe was in 1984; April maximum swe was in 1972 and minimum swe was in 1984; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum was in 1972 and minimum swe was in 1987, 1992, and 1998. Average is for the period 1971 through 2000.

Mountain and valley precipitation during May in the Sun was 31 percent of average and 51 percent of last year; in the Teton was 54 percent of average and 54 percent of last year; and in the Marias was 67 percent of average and 66 percent of last year. Mountain and valley water year precipitation, beginning October 1, 2002, was 83 percent of average and 82 percent of last year.



Gibson storage was 107 percent of average and 113 percent of last year; Pishkun storage was 94 percent of average and 98 percent of last year; Willow Creek storage was 115 percent of average and 126 percent of last year; Lower Two Medicine Lake storage was 85 percent of average and 102 percent of last year; Four Horns Lake storage was 107 percent of average and 125 percent of last year; Swift storage was 128 percent of average and 225 percent of last year; Lake Frances storage was 125 percent of average and 222 percent of last year; and Lake Elwell (Tiber) storage was 118 percent of average and 110 percent of last year.

For streamflow snow melt peak dates and volumes refer to the statewide summary.

Surface Water Supply Index (SWSI) was -2.6 in the Sun River; -1.7 in the Teton River; -1.5 in the Birch/Dupuyer Creeks; and -1.5 in the Marias River above Tiber and +0.4 in the Marias below Tiber.

SUN-TETON-MARIAS RIVER BASINS
Streamflow Forecasts - June 1, 2003

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
GIBSON Reservoir Inflow	JUN-JUL	96	131	155	61	179	213	255
	JUN-SEP	137	175	200	66	227	262	305
TWO MEDICINE RIVER nr Browning	JUN-JUL	34	48	57	60	66	80	95
	JUN-SEP	41	57	68	64	79	95	107
BADGER CREEK nr Browning (2)	JUN-JUL	19.0	27	32	60	37	45	53
	JUN-SEP	29	38	45	65	52	61	69
SWIFT RESERVOIR Inflow	JUN-JUL	9.5	15.5	19.6	56	24	30	35
	JUN-SEP	18.0	26	31	66	36	44	47
DUPUYER CREEK nr Valier	JUN-JUL	0.12	1.16	2.30	35	4.80	8.60	6.50
	JUN-SEP	0.39	2.15	3.60	43	6.60	11.10	8.30
CUT BANK CREEK at Cut Bank	JUN-JUL	6.0	19.0	28	67	37	50	42
	JUN-SEP	9.2	25	36	71	47	63	51
MARIAS RIVER nr Shelby (2)	JUN-JUL	29	54	70	38	113	177	183
	JUN-SEP	44	68	84	40	125	186	210
TETON nr Dutton	JUN-JUL	0.5	5.9	9.5	35	19.9	35	27
	JUN-SEP	1.4	9.2	14.5	41	25	41	35

SUN-TETON-MARIAS RIVER BASINS
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
GIBSON	99.1	95.1	84.0	89.2
PISHKUN	32.0	28.6	29.1	30.3
WILLOW CREEK	32.2	32.3	25.6	28.0
LOWER TWO MEDICINE LAKE	11.9	10.5	10.3	12.3
FOUR HORNS LAKE	19.2	13.6	10.9	12.7
SWIFT	30.0	30.1	13.4	23.5
LAKE FRANCES	112.0	104.9	47.3	83.9
LAKE ELWELL (TIBER)	1347.0	871.2	790.4	737.7

SUN-TETON-MARIAS RIVER BASINS
Watershed Snowpack Analysis - June 1, 2003

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
SUN	2	14	27
TETON	3	14	27
MARIAS	3	31	54
SUN-TETON-MARIAS	6	26	47

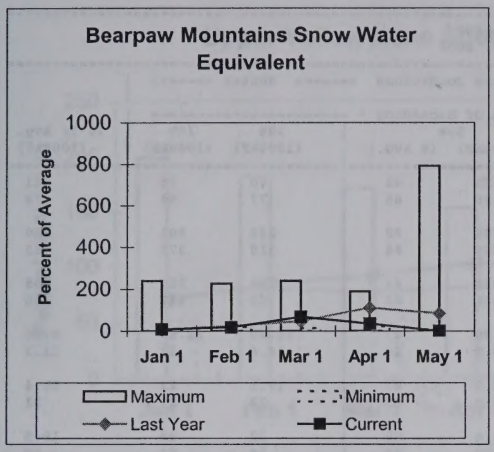
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

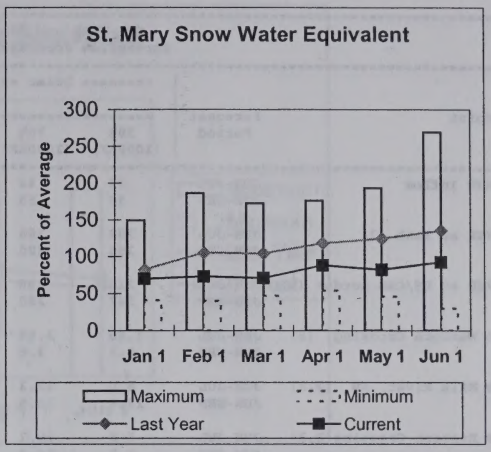
The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

St. Mary and Milk River Basins

Snowpack conditions in the St. Mary were below average. Snow water content was 92 percent of average and 68 percent of last year. Snow in the Milk has melted out.

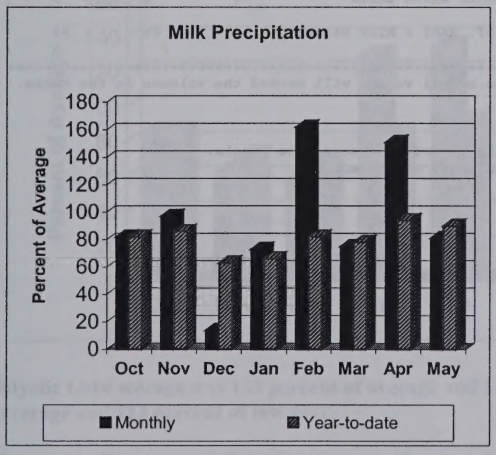


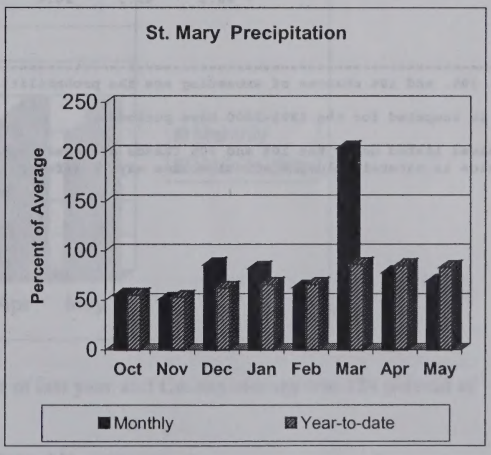


Bearpaw - January maximum swe was established in 1978 and minimum swe was in 1981; February maximum swe was 1978 and minimum was in 1973; March maximum swe was 1978 and minimum swe was 1995; April maximum swe was in 1985 and minimum swe was in 1973, 1983, and 1986; May maximum swe was 1975 and the minimum, 0.0, has occurred in several years. Average is for the period 1971 through 2000.

St. Mary - January maximum swe was established in 1997 and minimum swe was in 1988; February maximum swe was in 1972 and minimum swe was in 2001; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1967 and 1972 and minimum swe was in 2001; May maximum swe was in 19972 and minimum swe was in 1977; and June maximum swe was in 1972 and minimum swe was 1992. Average is for the period 1971 through 2000.

Mountain and valley precipitation in the St. Mary River Basin during May was 69 percent of average and 53 percent of last year; and in the Milk River Basin during May was 81 percent of average and 87 percent of last year. Mountain and valley water year precipitation, beginning October 1, 2002, was 87 percent of average and 90 percent of last year.





Lake Sherburne storage was 94 percent of average and 131 percent of last year; Fresno storage was 101 percent of average and 304 percent of last year; Beaver Creek storage was 110 percent of average and 1100 percent of last year; and Nelson storage was 122 percent of average and 238 percent of last year.

For streamflow snow melt peak dates and volumes refer to the statewide summary.

Surface Water Supply Index (SWSI) was -0.8 for the Milk River.

ST. MARY and MILK RIVER BASINS
Streamflow Forecasts - June 1, 2003

Forecast Point	Forecast Period	<<====== Drier ====== Chance Of Exceeding *		Future Conditions 50%		======= Wetter =====>> Chance Of Exceeding *		30-Yr Avg.
		90% (1000AF)	70% (1000AF)	(1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	(1000AF)
LAKE SHERBURNE Inflow	JUN-JUL	25	40	50	82	60	75	61
	JUN-SEP	38	55	66	85	77	94	78
ST. MARY RIVER nr Babb (2)	JUN-JUL	109	166	205	82	246	301	250
	JUN-SEP	155	220	265	84	310	375	315
ST. MARY RIVER at US/CAN Border (2)	JUN-JUL	115	186	235	89	285	355	265
	JUN-SEP	167	250	305	88	360	445	345
MILK RIVER @ Western Crossing (3)	JUN-JUL	1.65	3.68	8.30	87	14.20	22.60	9.50
	JUN-SEP	0.9	3.6	9.5	84	16.6	27	11.3
MILK RIVER @ Milk River, AB (2,3)	JUN-JUL	8.0	12.3	15.2	87	18.1	22	17.4
	JUN-SEP	10.4	15.5	19.0	89	22	27	21
MILK RIVER @ Eastern Crossing(2,3)	JUN-JUL	5.8	12.7	17.4	89	22	29	19.5
	JUN-SEP	1.2	16.0	26	90	36	51	29
BEAVER CREEK near Havre	JUN-JUL	0.09	0.33	0.50	13	1.86	3.76	4.00

ST. MARY and MILK RIVER BASINS
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
LAKE SHERBURNE	64.3	30.2	23.1	32.0
FRESNO	127.0	84.7	27.9	83.5
BEAVER CREEK	3.5	3.3	0.3	3.0
NELSON	66.8	49.5	20.8	40.6

ST. MARY and MILK RIVER BASINS
Watershed Snowpack Analysis - June 1, 2003

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
ST. MARY	2	68	92
BEARPAW MOUNTAINS	4	0	0
CYPRESS HILLS, CANADA	0	0	0
MILK RIVER BASIN	4	0	0
ST. MARY & MILK BASINS	6	68	90

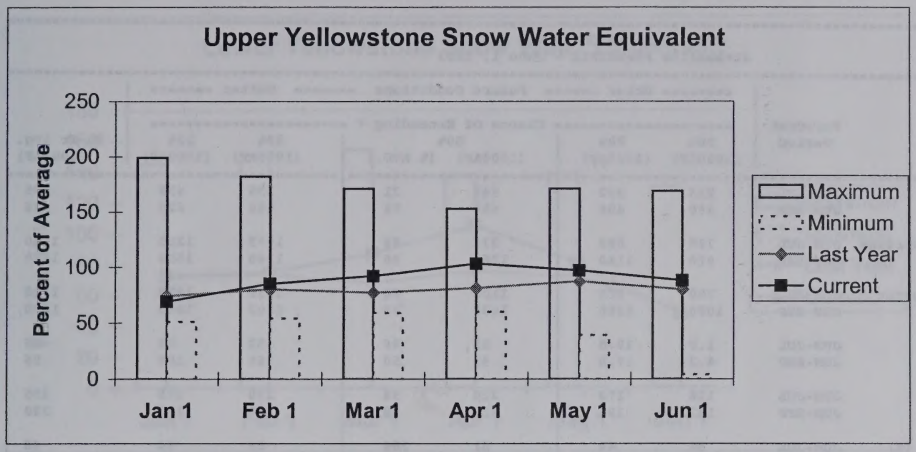
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

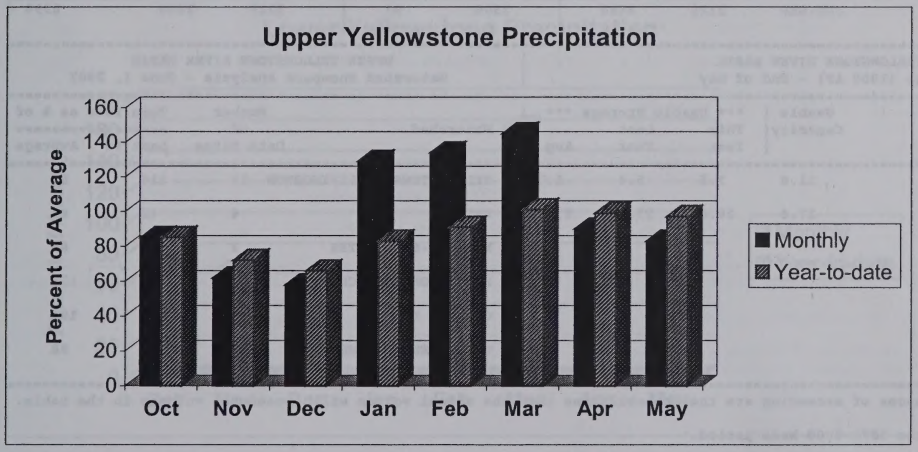
Upper Yellowstone River Basin

Snowpack conditions in the Upper Yellowstone River Basin were below average. Snow water content was 88 percent of average and 111 percent of last year.



January maximum swe was established in 1997 and minimum swe was in 1988; February maximum swe was in 1997 and minimum swe was in 2001; March maximum swe was in 1997 and minimum swe was in 2001; April maximum swe was in 1997 and minimum swe was in 2001; May maximum swe was in 1997 and minimum swe was in 1987; and June maximum swe was 1996 and minimum swe was in 2001. Average is for the period 1971 through 2000.

Mountain precipitation during May was 82 percent of average and 92 percent of last year. Valley precipitation during May was 85 percent of average and 99 percent of last year. Mountain and valley water year precipitation, beginning October 1, 2002, was 97 percent of average and 109 percent of last year.



Mystic Lake storage was 133 percent of average and 141 percent of last year and Cooney storage was 124 percent of average and 113 percent of last year.

For streamflow snow melt peak dates and volumes refer to the statewide summary.

Surface Water Supply Index (SWSI) was -0.8 in the Yellowstone River above Livingston; -0.8 in the Shields River; -0.6 in the Boulder River; +0.3 in the Stillwater River; +0.9 in the Rock/Red lodge Creeks; -0.3 in the Clarks Fork River; and -0.5 in the Yellowstone River above Bighorn River.

UPPER YELLOWSTONE RIVER BASIN
Streamflow Forecasts - June 1, 2003

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
YELLOWSTONE at Lake Outlet	JUN-JUL	235	300	345	71	390	455	485
	JUN-SEP	380	450	500	72	550	620	695
YELLOWSTONE RIVER at Corwin Springs	JUN-JUL	735	880	975	86	1075	1215	1140
	JUN-SEP	970	1140	1260	86	1380	1550	1460
YELLOWSTONE RIVER near Livingston	JUN-JUL	790	975	1100	84	1230	1410	1310
	JUN-SEP	1020	1260	1430	84	1600	1840	1700
SHIELDS RIVER nr Livingston	JUN-JUL	1.9	10.8	32	46	53	84	69
	JUN-SEP	4.2	17.0	43	50	69	108	86
BOULDER RIVER at Big Timber	JUN-JUL	126	170	200	98	230	275	205
	JUN-SEP	142	191	225	98	260	310	230
MYSTIC LAKE Reservoir Inflow (2)	JUN-JUL	38	46	51	106	56	64	48
	JUN-SEP	51	61	68	103	75	85	66
STILLWATER RIVER nr Absarokee (2)	JUN-JUL	315	355	380	104	405	445	365
	JUN-SEP	380	435	470	102	505	560	460
CLARKS FORK RIVER nr Belfry	JUN-JUL	216	310	375	96	440	535	390
	JUN-SEP	239	350	425	96	500	610	445
COONEY RESERVOIR Inflow (2)	JUN-JUL	11.9	20	25	109	30	38	23
	JUN-SEP	21	30	36	106	42	51	34
YELLOWSTONE RIVER at Billings (2)	JUN-JUL	1580	1950	2200	92	2450	2820	2380
	JUN-SEP	2120	2580	2900	97	3220	3680	2990

UPPER YELLOWSTONE RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MYSTIC LAKE	21.0	7.6	5.4	5.7
COONEY	27.4	26.6	23.6	21.5

UPPER YELLOWSTONE RIVER BASIN
Watershed Snowpack Analysis - June 1, 2003

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
YELLOWSTONE ab LIVINGSTON	11	114	89
SHIELDS	4	42	44
BOULDER-STILLWATER	3	96	85
RED LODGE-ROCK CREEK	1	271	125
CLARK'S FORK	7	127	102
UPPER YELLOWSTONE BASIN	22	111	88

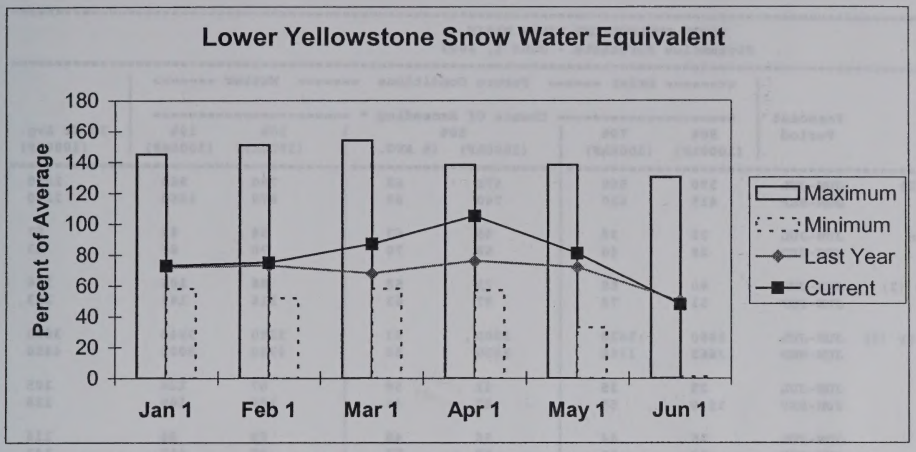
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

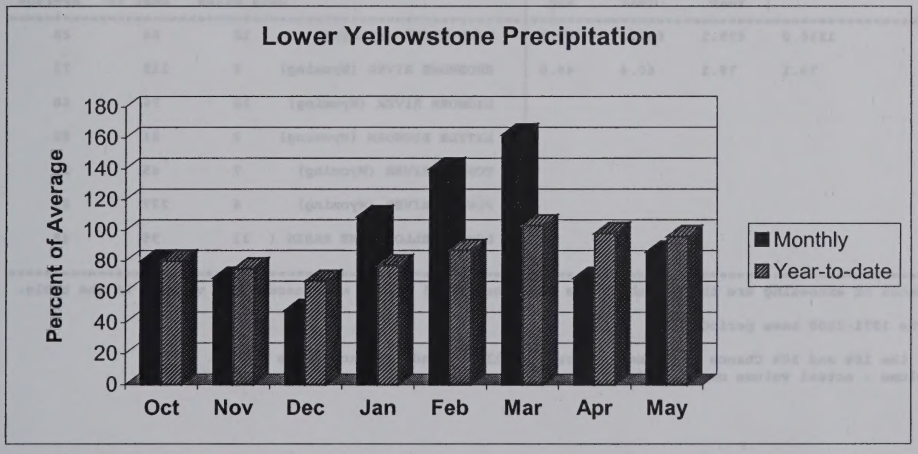
Lower Yellowstone River Basin

Snowpack conditions in the Lower Yellowstone River Basin, in Wyoming, were severely below average. Snow water content was 48 percent of average and 95 percent of last year.



January maximum swe was established in 1997 and minimum swe was in 2000; February maximum swe was in 1997 and minimum swe was in 2001; March maximum swe was in 1986 and minimum swe was in 2001; April maximum swe was in 1986 and minimum swe was in 2001; May maximum swe was in 1997 and minimum swe was in 1981; and June maximum swe was in 1995 and minimum swe was in 2001. Average is for the period 1971 through 2000.

Mountain and valley precipitation during May was 86 percent of average and 135 percent of last year. Mountain and valley water year precipitation, beginning October 1, 2002, was 96 percent of average and 122 percent of last year.



Bighorn Lake storage was 78 percent of average and 105 percent of last year and Tongue River storage was 165 percent of average and 196 percent of last year.

For streamflow snow melt peak dates and volumes refer to the statewide summary.

Surface Water Supply Index (SWSI) was -3.7 in the Bighorn River below Bighorn Lake; -1.1 in the Little Bighorn River; -1.9 in the Yellowstone River below Bighorn River; -1.6 in the Tongue River; and -2.7 in the Powder River.

LOWER YELLOWSTONE RIVER BASIN
Streamflow Forecasts - June 1, 2003

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BIGHORN RIVER nr St. Xavier (2)	JUN-JUL	390	560	675	62	790	960	1090
	JUN-SEP	415	610	740	60	870	1060	1240
LITTLE BIGHORN RIVER nr Hardin	JUN-JUL	22	36	45	67	54	68	67
	JUN-SEP	29	46	58	70	70	87	83
TONGUE RIVER RESERVOIR Inflow (2)	JUN-JUL	40	60	73	58	86	106	126
	JUN-SEP	51	78	97	63	116	143	153
YELLOWSTONE RIVER at Miles City (2)	JUN-JUL	2060	2620	3000	83	3380	3940	3600
	JUN-SEP	2665	3360	3830	86	4300	5000	4450
POWDER RIVER at Moorehead	JUN-JUL	25	35	61	58	87	126	105
	JUN-SEP	15.0	55	82	64	109	149	128
POWDER RIVER near Locate	JUN-JUL	26	44	56	48	68	86	116
	JUN-SEP	43	65	80	57	95	117	141
YELLOWSTONE RIVER nr Sidney (2)	JUN-JUL	2040	2610	3000	82	3390	3960	3650
	JUN-SEP	2640	3335	3810	85	4280	4980	4460

LOWER YELLOWSTONE RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BIGHORN LAKE	1356.0	675.1	642.2	867.1
TONGUE RIVER	79.1	79.1	40.4	48.0

LOWER YELLOWSTONE RIVER BASIN
Watershed Snowpack Analysis - June 1, 2003

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
WIND RIVER (Wyoming)	12	82	28
SHOSHONE RIVER (Wyoming)	6	119	73
BIGHORN RIVER (Wyoming)	16	96	60
LITTLE BIGHORN (Wyoming)	2	81	52
TONGUE RIVER (Wyoming)	7	45	27
POWDER RIVER (Wyoming)	6	227	23
LOWER YELLOWSTONE BASIN (	31	95	48

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

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(2) - The value is natural volume - actual volume may be affected by upstream water management.

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Bozeman, MT 59715

Montana Water Supply Outlook Report

Natural Resources Conservation Service
Bozeman, MT